

## Y. Hossein Farzin

Department of Agricultural and Resource Economics  
University of California, Davis, CA 95616, U.S.A.  
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### EDUCATION

D.Phil. in Economics, Oxford University, England, 1982

M.Phil. in Economics, Oxford University, England, 1976

B.A. (First Top, Honors) in Economics, Tehran University, Iran, 1972

D.Phil. Thesis: “*Competition in the Market for an Exhaustible Resource*”,  
Advisors: James A. Mirrlees (Nobel Laureate, 1996)  
Joseph E. Stiglitz (Nobel Laureate, 2001)  
Examiners: Geoffrey M. Heal, David K. H. Begg

### PROFESSIONAL EXPERIENCE

Professor Emeritus, Department of Agricultural & Resource Economics, University of California, Davis,  
July 2015-Present

Professor, Department of Agricultural & Resource Economics, University of California, Davis,  
July 2002-June 2015

External Research Associate, Oxford Centre for the Analysis of Resource Rich Economies (OxCarre),  
Department of Economics, Oxford University, UK, [www.oxcarre.ox.ac.uk](http://www.oxcarre.ox.ac.uk)  
April 2011- Present

Visiting Professor, Department of Agricultural & Resource Economics, UC Berkeley,  
September 2010-June 2011 (sabbatical leave)

Associate Professor, Department of Agricultural & Resource Economics, University of California, Davis,  
July 1998-June 2002

Assistant Professor, Department of Agricultural & Resource Economics, University of California, Davis,  
Fall 1996-June 1998

Reader in Economics (Tenured), Department of Economics, University of Surrey, England,  
Fall 1995-Fall 1996

Visiting Associate Professor, Department of Economics, Georgetown University, Washington D.C., U.S.A.,  
Fall 1992-Fall 1994

Visiting Associate Professor, Department of Economics, American University, Washington D.C., U.S.A.,  
Fall 1990-Spring 1992

Consultant, The World Bank, Washington D.C., U.S.A.  
1988-September 1990

Economist, The World Bank, Washington D.C., U.S.A.  
1982-1988

## **TEACHING EXPERIENCE**

*Undergrad Courses:* Environmental Economics, Natural Resource Economics, Intermediate Microeconomic Theory, International Economics, Public Economics, Development Economics and Growth Models, Quantitative Methods.

*Graduate Courses:* Natural Resource and Environmental Economics, The Environment and Economic Development, Economics of Energy and Environment, Advanced Microeconomic Theory, International Trade Theory, Topics in Development Economics and Growth Theory.

## **RESEARCH EXPERIENCE**

### **Fields of Concentration**

#### ***Environmental, Natural Resources, and Energy Economics***

*Environmental Economics:* Sustainability, green national income accounting and welfare, Efficient pricing of environmental and natural resources with stock externalities, optimal carbon taxation for global warming control, optimal timing of climate-change control policies, industry and welfare effects of environmental regulations, uncertain environmental regulations and pollution abatement investment, lobbying and environmental regulation, nonpoint source pollution and imperfect information, political institutions and environmental quality, environmental and natural resource policy for sustainable development.

*Natural resources and energy economics:* Sustainable soil management, nonrenewable resources and conservation: energy demand and supply modeling and estimation, economics of alternative energy sources and energy security, climate change and efficient pricing of fossil fuels, technological change and measures of natural resource scarcity, optimal natural resource taxation, optimal saving and investment policies for sustainable development of resource economies.

#### ***Development Economics***

Optimal timing of technology adoption, poverty, employment value and resource extinction, economic policies for sustainability of resource-based economies, environmental quality and economic development, trade policy and productivity growth, economic reform (particularly price and foreign exchange liberalization) and safety net policy, foreign borrowing and development policy, international investment (long-term capital movements), international lending and external debt problem, international aid.

*Country studies and World Bank operational experience:* Africa (Nigeria, Sudan, Somalia), Latin America (Argentina, Mexico), Middle-East (Iran, U.A.E., Kuwait).

## **Recent Publications**

- “[Poverty, Social Preference for Employment, and Natural Resource Depletion](#)”, (with K.-I. Akao), *Environmental Economics and Policy Studies*, Vol. 17, No. 1, 2015.
- “[Switchgrass in California: Where, and at What Price](#)”, (with F. Yi, P. Merel, J. Lee and J. Six), *GCB-Bioenergy*, Vol. 6, Issue 6, November 2014.
- “[Does Political Ideology Matter for Environmental Quality Outcomes?](#)” (with C.A. Bond), *Environmental Economics*, Vol. 5, Issue 2, 2014.
- “[The Time Path of the Saving Rate: Hyperbolic Discounting and Short-Term Planning](#)”, (with R. Wendner), *Fondazione Eni Enrico Mattei (FEEM) Working Papers No. 063. 2014*
- “[Environmental Quality in a Differentiated Duopoly Facing a Minimum Quality Standard](#)”, (with K.I. Akao), *Environmental Economics*, Vol. 4, Issue 2, 2013.
- “[Socioeconomic Factors and Water Quality in California](#)”, (with K. A. Grogan), *Environmental Economics and Policy Studies*, Vol. 15, Issue 1, January 2013.
- “[Saving Rate Dynamics in the Neoclassical Growth Model - Hyperbolic Discounting and Observational Equivalence](#) (with R. Wendner). *Fondazione Eni Enrico Mattei (FEEM) Working Papers No. 42.2013*
- “[Are Democrats Greener than Republicans? The Case of California Air Quality](#)” (with C.A. Bond), *Fondazione Eni Enrico Mattei (FEEM) Working Papers No. 97.2012*
- “Sustainability, Optimality, and Development Policy”, *Review of Development Economics*, Vol. 14, No.2 , May 2010.
- “The Effect of Nonpecuniary Motivations on Labor Supply”, *The Quarterly Review of Economics and Finance*, Vol. 49, No.4, November 2009.
- “Explaining International Labeling Policies of Genetically Modified Food” (with G. Gruere and C. Carter), *Review of International Economics*, Vol. 17, No 3, August 2009.
- “What Labelling Policy for Consumer Choice? The Case of Genetically Modified Food in Canada and Europe” (with G. Gruere and C. Carter), *Canadian Journal of Economics*, Vol. 41, No. 4, November 2008.
- “Alternative Sustainability Criteria, Externalities, and Welfare in a Simple Agroecosystem Model: A Numerical Analysis” (with C.A. Bond), *Environment and Resource Economics*, Vol. 40, No.3, 2008.
- “Agroecosystem Modeling and Optimal Economic Decisions: Implications for Sustainable Agriculture” (with C.A. Bond), *Optimal Control, Applications and Methods*, Vol. 29, No.1, January/February 2008.

## **MEMBERSHIP IN PROFESSIONAL SOCIETIES**

American Economic Association, American Agricultural Economic Association, Giannini Foundation of Agricultural Economics, Royal Economic Society, Association of Environmental and Resource Economists (AERE, U.S.), European Association of Environmental and Resource Economists (EAERE), Society for Environmental Economics and Policy Studies (SEEPS), International Society for Ecological Economics (ISEE), International Economics and Finance Society (IEFS), Economic Development Association (EDA), Society for Economic Dynamics (SED), The United Nations’ Environment and Development Committee, Society for Promotion of Economic Theory, Association of Public Economic Theory (APET).

## **EDITORIAL ACTIVITIES**

Co-Editor, *Environmental Economics and Policy Studies*, 2014-present

Associate Editor, *Review of Development Economics*, 1999- present

Editorial Board, *Environment and Development Economics*, 2008-2010, 2011-2013, 2014-present

Editorial Board, Environmental Economics and Policy Studies, 2010-2013

Editorial Council, Journal of Environmental Economics and Management, 1996-1999, 2007- 2013

Editorial Council, Journal of Agricultural and Resource Economics, 2003-2007

### **INTERNATIONAL PROFESSIONAL ACTIVITIES**

External Research Associate, Oxford Centre for the Analysis of Resource Rich Economies (OxCarre),  
Department of Economics, University of Oxford, UK, [www.oxcarre.ox.ac.uk](http://www.oxcarre.ox.ac.uk), April 2011- Present

Research Fellow, Rural Development Research Consortium (RDRC), UC Berkeley, 2003-Present

Founding member and member of the Board of Directors (2012), International Iranian Economic Association (IIEA)

Member of the Scientific Program Committee, the 5<sup>th</sup> World Congress of Environmental and Resource Economists, Istanbul, Turkey, June 28-July 2, 2014.

Co-Chair of the Scientific Program Committee, the 3<sup>rd</sup> Conference of the International Iranian Economic Association (IIEA), Istanbul, Turkey, June 25-27, 2013.

Member of the Program Committee, the annual conference of the European Association of Environmental and Resource Economists (EAERE), 1996-2000, 2007-2013.

Member of the Program Committee, the annual conference of the American Association of Environmental and Resource Economists (AERE), 2012, 2013.

Member of the Scientific Program Committee, the 4<sup>th</sup> World Congress of Environmental and Resource Economists, Montreal, Canada, June 28- July 2, 2010.

Visiting Professor, Graduate School of Economics and the Institute of Economic Research (IER),  
Kyoto University, Japan, October 1- November 30, 2006.

Visiting Professor, Waseda University, Japan, September 1-September 30, 2006.

Co-Chair of the Program Committee, the 3<sup>rd</sup> World Congress of Environmental and Resource Economists,  
Kyoto, Japan, July 3-7, 2006.

Member of the Program Committee, International Conference of the Association of Public Economic Theory (PET) 2002

Fellow, University of California, Davis, Association of Pacific Rim Universities (APRU), 2000

Member of the European Union Research Network on Dynamic Investment, Center for Economic Research  
(CentER), Tilburg University, Netherlands, 1995-2000

Visiting Scholar, Center for Economic Research (CentER), Tilburg University, July 25-August 25, 1996

Visiting Scholar, Center for Economic Research (CentER), Tilburg University, November 19-26, 1995

### **JOURNAL REFEREEING**

American Economic Review, Journal of Political Economy, Review of Economic Studies, Econometrica, Economic Journal, Journal of Public Economics, Journal of Public Economic Theory, Journal of Development Economics, International Economic Review, Journal of Economic Dynamics and Control, Journal of Economics, The B.E. Journal of Economic Analysis & Policy, Journal of Environmental Economics and Management, American Journal of Agricultural Economics, Journal of Agricultural and Resource Economics, Energy Journal, Environment and Development Economics, Natural Resource Modeling, Environmental and Resource Economics, Energy and Resource Economics, Ecological Economics, Quarterly Review of Economics and Finance, Oxford Economic Papers, Review of Economics of Household, Scandinavian Journal of Economics, World Development, Cambridge University Press, MIT Press, National Science Foundation, Social Sciences and Humanities Research Council of Canada, Energy Biofuels Institute, Japan Society for the Promotion of Science (JSPS).

### **PUBLICATIONS**

#### **A. Books**

- Competition in the Market for an Exhaustible Resource, 210 pp., JAI Press, Connecticut and London, 1986.

- Long-Run Economic Growth Prospects for Industrial Countries, (edited jointly with J. de Bandt), proceedings of the World Bank-OECD Conference held at Rolleboise, Paris, June 13-15, 1984, World Bank Publication, 1986.

## B. Journal Articles

- [“Poverty, Social Preference for Employment, and Natural Resource Depletion”](#), (with K.I. Akao), Environmental Economics and Policy Studies, Vol. 17, No. 1, 2015.
- [“Swichgrass in California: Where, and at What Price”](#), (with F. Yi, P. Merel, J. Lee and J. Six), GCB-Bioenergy, Vol. 6, Issue 6, November 2014.
- [“Does Political Ideology Matter for Environmental Quality Outcomes?”](#) (with C.A. Bond), Environmental Economics, Vol. 5, Issue 2, 2014.
- [“Environmental Quality in a Differentiated Duopoly Facing a Minimum Quality Standard”](#), (with K.-I. Akao), Environmental Economics, Vol. 4, Issue 2, 2013.
- [“Socioeconomic Factors and Water Quality in California”](#), Environmental Economics and Policy Studies, (with K. Grogan), Vol. 15, Issue 1, January 2013.
- [“Sustainability, Optimality, and Development Policy”](#), Review of Development Economics, Vol. 14, Issue 2, May 2010.
- [“The Effect of Non-pecuniary Motivations on Labor Supply”](#), The Quarterly Review of Economics and Finance, Vol. 49, No.4, November 2009.
- [“Explaining International Labeling Policies of Genetically Modified Food”](#) (with G. Gruere and C. Carter) Review of International Economics, Vol. 17, No.3, August 2009.
- [“What Labelling Policy for Consumer Choice? The Case of Genetically Modified Food in Canada and Europe”](#) (with G. Gruere and C. Carter), Canadian Journal of Economics, Vol. 41, No. 4, November 2008.
- [“Alternative Sustainability Criteria, Externalities, and Welfare in a Simple Agroecosystem Model: A Numerical Analysis”](#) (with C. A. Bond), Environment and Resource Economics, Vol. 40, No.3, July 2008.
- [“Agroecosystem Modeling and Optimal Economic Decisions: Implications for Sustainable Agriculture”](#) (with C. A. Bond), Optimal Control, Applications and Methods, Vol. 29, No.1, January/February 2008.
- [“Estimating Agricultural Pollution Abatement Costs at the Plot Level Using Experimental Data: A Maximum Entropy Approach”](#) (with C. A. Bond), Journal of Agricultural and Resource Economics, Vol. 32 , No.2, August 2007

- [“When is it Optimal to Exhaust a Resource in a Finite Time?”](#) (with K. Akao), Ecological Research, Vol. 22, No.3, May 2007
- [“Democracy and Environmental Quality”](#), (with C. A. Bond), Journal of Development Economics, Vol. 81, Issue 1, October 2006
- [“Conditions for Sustainable Optimal Economic Development”](#), Review of Development Economics, Vol.10, No.3, August 2006
- [“Can Stricter Environmental Standards Benefit Industry and Enhance Welfare?”](#), Annales D'Economie et de Statistique, Vol. 75-76, December 2004
- [“Non-point Source Pollution under Incomplete and Costly Information”](#), (with J. Kaplan) Environmental and Resource Economics, Vol. 28, No.4, August 2004
- [“Is an Exhaustible Resource Economy Sustainable?”](#) Review of Development Economics , Vol. 8, No.1, February 2004
- [“The Effects of Emissions Standards on Industry”](#) Journal of Regulatory Economics, Vol. 24, No.3, November 2003
- [“An Information-Theoretical Analysis of Budget-Constrained Non-point Source Pollution Control”](#), (with J.D. Kaplan and R.E. Howitt), Journal of Environmental Economics and Management, Vol.46, No.1, July 2003
- [“The Impact of Oil Price on Additions to US Proven Reserves”](#), Energy and Resource Economics, Vol.23, No.3, July 2001
- [“Pollution Abatement Investment When Environmental Regulation is Uncertain”](#) (with P. Kort) Journal of Public Economic Theory, Vol.2, No.2, April 2000
- [“Optimal Saving Policy for Exhaustible Resource Economies”](#), Journal of Development Economics, Vol. 58, No.2, Feb., 1999
- [“Optimal Timing of Technology Adoption”](#) (with P. Kort and K. Huisman), Journal of Economic Dynamics and Control , Vol. 72, No.6, May 1998
- [“Global Carbon Cycle and the Optimal Time Path of a Carbon Tax”](#) (with O. Tahvonen) Oxford Economic Papers, Vol. 48, No. 4, October 1996
- [“Optimal Pricing of Environmental and Natural Resource Use With Stock Externalities”](#), Journal of Public Economics, Vol. 62, October 1996
- [“Foreign Exchange Reform in Iran: Badly Designed, Badly Managed”](#),

World Development, Vol. 23, No. 6, June 1995

- “[Technological Change and the Dynamics of Natural Resource Scarcity Measures](#)”, Journal of Environmental Economics and Management, Vol. 28, No. 3, May 1995
- “[Importance of Foreign Investment for the Long-Run Economic Development of the UAE](#)”, World Development, Vol. 21, No. 4, April 1993
- “[The Time Path of Scarcity Rent in the Theory of Exhaustible Resources](#)”, Economic Journal, Vol. 102, No. 412, July 1992
- “[Food Aid: Positive or Negative Economic Effects in Somalia?](#)”, Journal of Developing Areas, Vol. 25, No. 2, January 1991
- “[The Economics of Natural Gas Utilization in Developing Countries: Methodology](#)”, Energy Journal, Vol. 6, No. 3, July 1985
- “[The Effect of Discount Rate on Depletion of Exhaustible Resources](#)”, Journal of Political Economy, Vol. 92, No. 5, October 1984

### C. **Published Discussion Papers and Book Chapters**

- “[The Time Path of the Saving Rate: Hyperbolic Discounting and Short-Term Planning](#)”, (with R. Wendner), Fondazione Eni Enrico Mattei (FEEM) Working Papers No. 063.2014
- “[Saving Rate Dynamics in the Neoclassical Growth Model - Hyperbolic Discounting and Observational Equivalence](#)” (with R. Wendner). Fondazione Eni Enrico Mattei (FEEM) Working Papers No. 42.2013
- “[Are Democrats Greener than Republicans? The Case of California Air Quality](#)” (with C.A. Bond). Fondazione Eni Enrico Mattei (FEEM) Working Papers No. 97.2012
- “[Socioeconomic Factors and Water Quality in California](#)” (with K. Grogan) Fondazione Eni Enrico Mattei (FEEM) Working Papers No. 51.2011
- “[California Water Quality: Is It Lower for Minorities and Immigrants?](#)” (with K. Grogan) Agricultural and Resource Economics Update, Vol. 13, No. 6, February/March 2009
- “[California Water Quality: The Role of Agriculture](#)” (with K. Grogan), Agricultural and Resource Economics Update, Vol. 11, No. 3, July/August 2008
- “[Sustainability and Optimality in Economic Development: Theoretical Insights and Policy Prospects](#)”, Fondazione Eni Enrico Mattei (FEEM) Working Papers No. 89.2007
- “[Efficiency and Abatement Costs in Alternative Production Systems](#)”, (with C. A. Bond and K. Klonsky), Sustainable Agriculture Farming Systems, Vol.7, No.3, University of

California, Davis, Summer 2007

- “[Environmental Quality in a Differentiated Duopoly](#)” (with Ken-Ichi Akao), *Fondazione Eni Enrico Mattei (FEEM) Working Papers* No. 138.06 November 2006
- “[Democracy and Environmental Quality](#)”, (with C. A. Bond), *Agricultural and Resource Economics Update*, Vol. 9, No. 4, March/April 2006
- “[Non-pecuniary Value of Employment and Natural Resource Extinction](#)” (with Ken-Ichi Akao), *Fondazione Eni Enrico Mattei (FEEM) Working Papers* No. 24.06, February 2006
- “[When is it Optimal to Exhaust a Resource in a Finite Time?](#)” (with Ken-Ichi Akao), *Fondazione Eni Enrico Mattei (FEEM) Working Papers* No. 23.06, February 2006
- “[Non-pecuniary Work Incentive and Labor Supply](#)” (with Ken-Ichi Akao), *Fondazione Eni Enrico Mattei (FEEM) Working Papers* No. 21.06, February 2006
- “[Economic and Environmental Impacts of Genetically Modified Rice Adoption in California](#)” (with C.A. Bond and C.A. Carter), *Ginannini Foundation Research Report*, No. 350, January 2005
- “[Non-pecuniary Value of Employment and Individual Labor Supply](#)” (with Ken-Ichi Akao), *Fondazione Eni Enrico Mattei (FEEM) Working Papers* No. 158.2004. December 2004 <http://www.feem.it/Feem/Pub/Publications/WPapers/default.htm>
- “[Medium Grains, High Stakes: Economics of GM Rice in California](#)” (with C.A. Bond and C.A. Carter), *AgBioForum*, Vol.6, No.4, August 2004
- “[Pollution Abatement Investment When Firms Lobby Against Environmental Regulation](#)” (with J. Zhao) , *Fondazione Eni Enrico Mattei (FEEM) Working Papers*, No. 82.2003, September 2003
- “[Can an Exhaustible Resource Economy be Sustainable?](#)” , *Fondazione Eni Enrico Mattei (FEEM) Working Papers*, SUS/ No.47.2002, June 2002
- “[Sustainability and Hamiltonian Value](#)”, *Fondazione Eni Enrico Mattei (FEEM) Working Papers*, SUS/ No.48.2002, June 2002
- “[An Information-Theoretical Analysis of Budget-Constrained Nonpoint Source Pollution Control](#)” (with J.D. Kaplan and R.E. Howitt), *Fondazione Eni Enrico Mattei (FEEM) Working*



Papers, ETA/ No.31.2001, May 2001

- “[Kyoto Greenhouse Gas Emissions Reduction Targets: Economic Issues and Prospects](#)”  
*Agricultural and Resource Economics Update*, Vol.4., No.1, Fall 2000
- “[The Effects of Emissions Standards on Industry in the Short Run and Long Run](#)”  
*Fondazione Eni Enrico Mattei (FEEM) Working Papers*, No.15.2000, January 2000
- “[Non-point Source Pollution under Incomplete and Costly Information](#)”, (with J. Kaplan)  
*Fondazione Eni Enrico Mattei (FEEM) Working Papers*, No.32.99, May 1999
- “[An Economic Model of Oil Reserves Additions: Application to U.S. Data](#)”,  
*Fondazione Eni Enrico Mattei (FEEM) Working Papers*, No.96.98, December 1998
- “[Pollution Abatement Investment when Environmental Regulation is Uncertain](#)”, (with P. Kort).  
*Fondazione Eni Enrico Mattei (FEEM) Working Papers*, No.75.98, November 1998
- “Can Higher Environmental Standards Enhance Competition and Welfare?”  
*Fondazione Eni Enrico Mattei (FEEM) Working Papers*, No. 87.96, December 1996
- “Optimal Saving Policy for Sustainability of Exhaustible Resource Economies”,  
*Fondazione Eni Enrico Mattei (FEEM) Working Papers*, No. 86.96, December 1996
- “[Optimal Timing of Technology Adoption](#)” (with P. Kort and K. Huisman)  
*Center for Economic Research (CentER) Discussion Paper* No. 9672, August 1996.
- “Optimal Timing of Global Warming and its Control Policy”,  
*Fondazione Eni Enrico Mattei (FEEM) Working Papers*, No. 86.95, December 1995
- “Global Carbon Cycle and the Optimal Time Path of a Carbon Tax”  
*Fondazione Eni Enrico Mattei (FEEM) Working Papers*, No. 75.95, December 1995
- “The Political Economy of Foreign Exchange Reform”,  
Chapter 9, *Iran After the Revolution: Crisis of an Islamic State*, S. Rahnema and S. Behdad (eds.), I.B. Tauris, London, 1995
- “Foreign Investment Policy for a Small Capital-Surplus Oil Exporting Country: The Case of the United Arab Emirates”, Chapter 5, in *United Arab Emirates: The Policy Agenda for Economic Sustainability*, World Bank, 1991

- “Structural Features and Growth Prospects for the Kuwaiti Economy”, Discussion note in *Developing Economies in Transition: Volume III*, F.D. McCarthy (ed.), proceedings of the International Conference on Global Prospects, Washington, D.C., April 25-26, 1989, World Bank, 1989
- “Long-Run Oil Price Cycle and the Economic Theory of Depletable Resources”, Chapter 5, *World Petroleum Markets: A Framework for Reliable Projections*, World Bank Technical Paper No. 92, 1988
- “External Debt-Growth Relationship: the Sudanese Experience, 1975-84”, World Bank Discussion Papers No. 24, 1988
- “Food Import Dependence in Somalia: Magnitude, Causes and Policy Options”, World Bank Discussion Papers No. 23, 1988
- “Sudan's Economic Recovery: Its Sensitivity to Foreign Financial Assistance and Oil Exports Prospects”, as Chapter 7: Adjustment Scenarios, in Prospects for Rehabilitation of the Sudanese Economy, Vol. I, World Bank, 1985
- “Agricultural Productivity and Trade: Argentina and the U.S.A. circa 1970” (with G. Chichilnisky and D. McLeod), Working Paper No. 1984-3, Economic Analysis and Projections Department, World Bank, 1984
- “Calibration and Simulation of a General Equilibrium Macro-Model of Trade and Domestic Distribution for Argentina” (with G. Chichilnisky and D. McLeod), Working Paper No. 1984-4, Economic Analysis and Projections Department, World Bank, 1984
- “Capital Utilization, Investment, and Profits: A Time Series Analysis for the United States” (with G. Chichilnisky and D. McLeod), Economic Analysis and Projections Department, Working Paper No. 1983-4, World Bank, 1983
- “The Effect of Discount Rate and Substitute Technology on Depletion of Exhaustible Resources”, World Bank Staff Working Paper No. 516, 1982

#### **D. Research Papers on Energy Economics**

- “Prospects for the World Oil Market: Disintegration of Soviet Union and Intensification of OPEC Incoherence”. Invited paper presented at the *Business and the Middle East* Conference, sponsored by the University of Michigan, Ann Arbor, April 9-10, 1992
- “Efficient Energy Pricing in Oil Importing Countries Facing Oil Supply Risks”, Industry and

Energy Department, World Bank, 1987

- “On Optimal Sequence of Utilization of Energy Substitutes for Crude Oil”, Industry and Energy Department, World Bank, 1987
- “Petroleum Product Demand in Developing Countries”, draft, Development Research Department, World Bank, 1983
- “Price Regulation and U.S. Crude Oil Production: An Intertemporal Optimization Approach”, Development Research Department, World Bank, 1982
- “Substitute Technology and Exhaustible Resource Depletion with Reference to World Crude Oil Market”, Development Research Department, World Bank, 1982
- “Macroeconomy-Energy Interaction in the Oil Importing Developing Countries” (with H. Pesaran), Development Research Department, World Bank, 1982
- “Rural Energy Consumption and Interfuel Substitution in India” (with D. Barnes), Development Research Department, World Bank, 1982
- “Efficient Pricing and Allocation of Energy Resources in Energy-Importing Countries”, Development Research Department, World Bank, 1982
- “A Dynamic Optimization Econometric Model of Crude Oil Supply from Non-OPEC Countries: With an Application to U.S. Data” Development Research Department, World Bank, 1982
- “Competition and Substitutes in the Market for an Exhaustible Resource”, (D.Phil. Thesis), Oxford University, 1982.
- “Speculation in the Oil Market and Econometric Specification of Demand for Crude Oil”, mimeo, Linacre College, Oxford University, 1977.
- “The Optimality of Exhaustible Resource Depletion”, (M.Phil. Thesis), Oxford University, 1976.

**E. Research Papers on International Economics and Economic Development and Growth**

- “Flexibility Mechanisms and the Kyoto GHG Emissions Targets”, Invited paper presented at *Workshop on Implementation of the Kyoto Protocol on Global Climate Change*, La Jolla, University of California, San Diego, April 28-30, 2000

- “Reform of Iran's Foreign Exchange Rate Regime: Economic Implications and Problems”. Paper presented at the Middle East Economic Association meeting of the annual ASSA conference, Anaheim, LA, January 5-7, 1993.
- “Somalia: Economic and Financial Policy Framework 1987-89”, draft, Africa Regional Office, World Bank, 1987.
- “The Flow of Private Foreign Direct Investment into LDCs: An Econometric Analysis”, Economic Analysis and Projections Department, World Bank, 1984
- “A Model for Estimation of Interlinkages Between Economic Growth Rates of Industrial and Developing Countries”, Economic Analysis and Projections Department, World Bank, 1984.
- “A Framework for Projection of LDCs Trade and Capital Flows: A 'Bottom-Up' Approach”, draft, Economic Analysis and Projections Department, World Bank, 1984
- “U.S. Productivity Decline: Estimate of Magnitude and Possible Causes”, Economic Analysis and Projections Department, World Bank, 1984
- “A Neoclassical Model for Estimation of Long-Term Economic Growth in Industrial Countries”, Economic Analysis and Projections Department, World Bank, 1984
- “Impact of Foreign Debt on Economic Growth of Developing Countries: Application”, Economic Analysis and Projections Department, World Bank, 1983
- “Impact of Foreign Trade on Economic Growth of Developing Countries”, Economic Analysis and Projections Department, World Bank, 1983.

### **Presentations at Conferences and Seminars**

#### **(a) Conferences (1990-present)**

- *Stanford Conference on Iran 2040 Project*, Stanford University, June 17-19, 2016 (invited Speaker).
- *The 4<sup>th</sup> World Congress of Environmental and Resource Economists, Montreal, Canada, June 28-July 2, 2010*
- *The 2009 PGPPE Conference on Public Policy, Externalities, and Growth*, University of Graz, Austria, July 9-11, 2009. (Keynote Presenter)
- *The 18<sup>th</sup> Annual Conference of the Canadian Resource and Environmental Economics (CREE) 2008*, Toronto, October 3-6, 2008.
- *The 83<sup>rd</sup> Annual Conference of the Western Economic Association International*, Waikiki, Hawaii, June 29-July 3, 2008.
- *The 2007 AAEA, WAEA, CAES Joint Annual Meeting*, Portland, Oregon, July 29-August 1, 2007.
- *The 9th Kyoto University International Symposium: Integrating Global Environmental Studies Towards Human Security*, Kyoto University, Japan, 22-23 June 2007. (Keynote Lecture)
- *The 3<sup>rd</sup> World Congress of Environmental and Resource Economists*, Kyoto, Japan, July 3-7, 2006.

- *The 8<sup>th</sup> California Workshop on Environmental and Natural Resource Economics*, University of California, Santa Barbara, October 28-29, 2005.
- *The 15<sup>th</sup> Annual Conference of the Canadian Resource and Environmental Economics (CREE) 2005*, Montreal, October 1-2, 2005.
- *The Annual Conference of Public Economic Theory, PET 05*, Marseille, France, June 16-19, 2005.
- *The 6<sup>th</sup> Heartland Environmental and Resource Economics (HERE) Workshop*, Iowa State University, Ames, Iowa, September, 19-20, 2004.
- *The Annual Conference of Public Economic Theory, PET Peking 04*, Beijing, China, August 25-29, 2004.
- *The 13<sup>th</sup> Annual Conference of the European Association of Environmental and Resource Economists, EAERE 2004*, University of Budapest, Budapest, Hungary, June 25-28, 2004.
- *The Annual 2003 Allied Social Science Association (ASSA) Meetings*, Washington DC, January 2-5, 2003.
- *The 3<sup>rd</sup> International Conference of Public Economic Theory, PET2002*, University of Paris 1 – Sorbonne, France, July 4-6, 2002.
- *Annual Conference of American Agricultural Economics Association (AAEA)*, Chicago, August 5-8, 2001.
- *The 2<sup>nd</sup> International Conference of Public Economic Theory, PET 2000*, University of Warwick, U.K., July 20-23, 2000.
- *The 10<sup>th</sup> Annual Conference of Conference of the European Association of Environmental and Resource Economists, EAERE 2000*, University of Crete, Rethmno, Greece, June 30-July 2, 2000.
- *Conference on Intergenerational Justice*, University of California, Davis, May 19-21, 2000.
- *Workshop on Implementation of the Kyoto Protocol on Global Climate Change*, La Jolla, University of California, San Diego, April 28-30, 2000.
- *Annual 2000 Allied Social Science Association (ASSA) Meetings*, Boston, January 7-9, 2000.
- *Annual Conference of American Agricultural Economics Association (AAEA)*, Nashville, August 9-11, 1999.
- *Workshop on Market-Based Instruments for Environmental Protection*, John F. Kennedy School of Government, Harvard University, Cambridge, Massachusetts, July 18-20, 1999.
- *The 9<sup>th</sup> Annual Conference of the European Association of Environmental and Resource Economists*, Oslo, Norway, June 27-29, 1999.
- *ESRC/IFS Conference on Environment and Economies in Transition*, Warwick University, U.K., May 27-29, 1999.
- *The 4<sup>th</sup> Annual California Workshop on Environmental and Resource Economics*, University of California, Santa Barbara, October 16-18, 1998.
- *The First World Congress of the Environmental and Resource Economists*, Venice, Italy, June 24-27, 1998.
- *World Bank Conference of “ Trade, Global Policy, and the Environment ”*, Washington DC, April 21-22 1998.
- *Annual Conference of the Royal Economic Society (RES)*, Warwick, U.K., March 31-April 3, 1998.
- *Annual Conference of the American Agricultural Economic Association (AAEA)*, Toronto, Canada, July 27-30 1997.
- *The 7<sup>th</sup> Annual Conference of the European Association of Environmental and Resource Economists*, Lisbon, Portugal, June 27-29, 1996.

- *International Workshop on “Timing the Abatement of Greenhouse Gas Emissions”*, Paris, June 17-18, 1996.
- *Inaugural Conference of the European Branch of the International Society for Ecological Economics (ISEE)*, Paris, France, May 23-25, 1996.
- *The 6<sup>th</sup> Annual Conference of the European Association of Environmental and Resource Economists*, Umeå, Sweden, June 19-21, 1995.
- *NBER TAPE Conference on Market Failures and Public Policy*, Turin, Italy, May 19-21, 1994.
- *The 5<sup>th</sup> Annual Conference of the European Association of Environmental and Resource Economists*, Dublin, Ireland, June 22-24, 1994.
- *Annual Conference of American Economic Association*, Anaheim, Los Angeles, U.S.A., January 5-7, 1993.
- *Fourth Annual Conference of the European Association of Environmental and Resource Economists*, INSEAD, Fontainebleau, France, June 30-July 3, 1993.
- *Summer Conference of American Association of Agricultural Economics*, Orlando, Florida, U.S.A., September 2-5, 1993.
- *The 3<sup>rd</sup> Canadian Conference on Environmental and Natural Resources Economics*, Ottawa, October 1-3, 1993.
- *International Conference on Economic Instruments for Air Pollution Control, IISA, Laxenburg*, Austria, October 18-20, 1993.
- *Annual Conference of American Economic Association*, New Orleans, January 3-5, 1992.
- *Conference of the Middle East Economies, University of Michigan*, Ann Arbor, April 9-10, 1992.
- *Annual Conference of American Economic Association*, Washington D.C., December 28-30, 1990.

**(b) Seminars (1991-Present)**

Department of Economics and Finance, Fergusson College, Pune, India, April 26, 2013  
 Department of Agricultural and Resource Economics, UC Berkeley, February 11, 2011  
 Oxford Centre for Analysis of Resource Rich Economies (OXCARE), University of Oxford, May 12, 2010  
 Department of Agricultural and Resource Economics, University of California, Davis, April 26, 2010  
 Wegener Center for Climate and Global Change, University of Graz, Austria, July 9, 2009  
 Department of Economics, University of Alberta, Edmonton, Canada, September 26, 2008  
 Department of Agricultural and Resource Economics, Colorado State University, Fort Collins, March 26, 2008  
 Department of Economics, University of Central Florida, October 19, 2007  
 Graduate School of Global Environmental Studies, Kyoto University, Japan, June 29, 2007  
 Institute of Economic Research (IER), Kyoto University, Japan, June 27, 2007  
 Graduate School of Economics and Business Administration, Hokkaido University, Japan, June 26, 2007  
 Bren School of Environmental Sciences and Management, University of California-Santa Barbara, April 27, 2007  
 Department of Economics, University of California-Riverside, April 6, 2007  
 Institute of Economic Research (IER), Kyoto University, Japan, November 15, 2006  
 Graduate School of Economics, Kyoto University, Japan, November 14, 2006  
 Institute of Social and Economic Research, Osaka University, Japan, November 10, 2006  
 Research Institute for Humanities and Nature (RIHN), Kyoto, Japan, October 30, 2006  
 Graduate School of Economics, Kobe University, Japan, October 24, 2006

Graduate School of Economics, Kyoto University, Japan, June 30, 2006  
World Bank, Development Economics Group (DEC), February 9, 2006  
School of Public Policy, University of Maryland, February 8, 2006  
Department of Agricultural and Resource Economics, University of California-Berkeley, November 4, 2005  
Department of Economics, University of California-Davis, June 2, 2005  
Graduate School of Economics, Kyoto University, Japan, March 18, 2005  
Research Institute for Humanity and Nature (RIHN), Kyoto, Japan, March 17, 2005  
School of Social Sciences, Waseda University, Japan, March 15, 2005  
Department of Economics, University of Southern California, March, 2, 2005  
Department of Agricultural and Resource Economics, University of California-Davis, November 8, 2004  
Department of Economics and Finance, University of Wyoming, October 22, 2004  
Department of Agricultural and Resource Economics, University of California-Davis, June 4, 2004  
Department of Economics, Iowa State University, March 28, 2003  
Department of Agricultural and Resource Economics, University of California-Davis, January 30, 2003  
Department of Agricultural and Resource Economics, University of California-Davis, October 18, 2001  
Department of Agricultural and Resource Economics, University of California-Berkeley, September 28, 2001  
Department of Economics, Stanford University, February 26, 2001  
Department of Economics, University of Washington, December 1, 2000  
Department of Economics, Catholic University of Milan, Italy, July 17, 2000  
The World Bank, Development Research Group, Washington D.C., June 21, 1999  
Department of Economics, University of California-Davis, November, 16, 1998  
Department of Agricultural and Resource Economics, University of California-Berkeley, November, 13, 1998  
Department of Agricultural and Resource Economics, University of California-Davis, November, 9, 1998  
The World Bank, Development Research Group, Washington D.C., July 20, 1998  
Department of Economics, University of California, Davis, May 28, 1997  
Department of Economics, Stanford University, April 14, 1997  
National Oceanic & Atmospheric Administration (NOAA), Washington DC, March 26, 1997  
Department of Agricultural and Resource Economics, University of Maryland, March 21, 1997  
Department of Agricultural and Resource Economics, University of California-Berkeley, February 14, 1997  
Department of Agricultural and Resource Economics, University of California-Davis, February 7, 1997  
Department of Agricultural and Resource Economics, University of California-Davis, October 11, 1996  
Center for Economic Research (*CentER*), Tilburg University, The Netherlands, August 14, 1996  
Department of Agricultural and Resource Economics, University of California-Davis, March 26, 1996  
Department of Economics, University of Keele, U.K., February 28, 1996  
Department of Economics, Royal Holloway College, London University, U.K., February 7, 1996  
Center for Economic Research (*CentER*), Tilburg University, The Netherlands, November 23, 1995  
Department of Economics, University College London, U.K., November 2, 1995  
Department of Economics, University of Stirling, U.K., October 24, 1995  
Center for Environmental Strategy, University of Surrey, U.K., October 17, 1995

Department of Economics, University of Surrey, U.K., March 21, 1995  
Department of Environmental Economics and Management, University of York, U.K., March 11, 1995  
Department of Economics, University College London, U.K., July 15, 1993  
Department of Economics, American University of Paris, France, July 5, 1993  
Policy Research Department, The World Bank, April 21, 1993  
Resources for the Future, Washington D.C., March 16, 1993  
Department of Economics, Georgetown University, February 19, 1993  
Department of Agricultural and Natural Resource Economics, University of Maryland, October 6, 1992  
Department of Economics, American University, January 28, 1992  
Department of Economics, University of Alberta, Canada, February 10, 1991  
Department of Economics, American University, February 18, 1991