

*Curriculum Vitae*  
**MAHADEV G. BHAT**

Professor and Associate Chair  
Co-Director, Agroecology Program  
Earth and Environment Department & Economics Department  
Florida International University  
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**EXPERIENCE:**

- August 2010 - Present      ***Professor (Resource Economics)***  
Departments of Earth & Environment *and* Economics, Florida International University, Miami.
- August 2010 - Present      ***Associate Chairperson***  
Department of Earth & Environment, Florida International University, Miami.
- August 1999 - July 2010      ***Associate Professor (Resource Economics)***  
Departments of Earth & Environment *and* Economics, Florida International University, Miami.
- August 1999 - July 2008      ***Graduate Program Director***  
Department of Environmental Studies, Florida International University, Miami.
- August 1994 - July 1999      ***Assistant Professor (Resource Economics)***  
Departments of Environmental Studies and Economics, Florida International University, Miami.
- February 1992 - August 1994      ***Postdoctoral Research Associate***  
Agricultural Policy Analysis Center, The University of Tennessee, Knoxville.
- August 1988 - December 1991      ***Graduate Research Assistant***  
Department of Agricultural Economics & Rural Sociology, The University of Tennessee, Knoxville.
- December 1983 - August 1988      ***Finance Officer***  
Rural Development Department, Dena Bank, Bangalore (India).

**AREAS OF STUDY:**      Natural resource economics and policy, resource modeling, economics of water resources, coastal resources management, and sustainable agriculture.

- EDUCATION:**
- Ph.D.      Agricultural Economics (natural resource economics concentration), The University of Tennessee, Knoxville, 1991.
- M.Sc.      Agricultural Economics, University of Agricultural Sciences, Dharwad (India), 1983.
- B.Sc.      Agricultural Marketing and Cooperation, University of Agricultural Sciences, Dharwad (India), 1981.

**AWARDS,  
HONORS &  
SIGNIFICANT  
ACHIEVEMENT**

- Florida International Univ **Presidential Excellence Award (Finalist)**, 2011.
- Florida International Univ **Faculty Award for Excellence in Service**, 2010.
- Certificate of Appreciation by Mayor, Miami-Dade County, 2006, for serving on the South Dade Watershed Plan Technical Review Committee.
- Co-Founder of the FIU Organic Garden, which received the **USDA People’s Garden** designation, April 2010.
- Founding Co-Director, Agroecology Program at Florida International University, 2005, under the grant from the US Department of Agriculture of over \$5 million ([www.agroecology.fiu.edu](http://www.agroecology.fiu.edu)).
- Founding Co-Director, Human Dimensions of the South Florida Environment Group, Florida International University, 1999.
- **Berg Fellow** of Soil and Water Conservation Society, 1992. Nominated as one of fifteen scientists from US and Canada for participating at the Society's first international Conservation Policy Forum, August 1992.
- Phi Kappa Phi Honor Society, 1990.
- Gama Sigma Delta Honor Society, 1989.
- Karnataka State Government’s State Award for the first rank in M.Sc., 1984.
- Jawaharlal Nehru Memorial Prize for an outstanding university student, 1981.
- BS and MS first rank gold medals, University of Agricultural Sciences, Bangalore, India, 1981 and 1983.

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**RESEARCH ACTIVITIES**

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**GRANT PROJECTS:**

Total grants: ≈ \$5.98 million

Agency	Research Project	Participation	Amount
USDA	Florida-Caribbean Consortium for Agriculture Education and Hispanic Workforce Development, August 2012 – July 2016.	PI	\$3,200,000
JP-Morgan Chase Foundation	Education Effect in Liberty City – Aquaponic and Garden Project, August 2011—July 2014 (part of a multi-million dollar project, awarded to FIU Office of Engagement)	PI	\$250,000
NOAA	Bioeconomic modeling of fisheries in Florida Pulley Ridge region, August 2011 – July 2016 (sub-contract from University of Miami).	PI	\$130,533
USDA	Multicultural Scholars Program for Agroecology and Sustainable Sciences at FIU. January 2011 – July 2015.	Co-PI	\$180,000
USDA	National Needs Fellows in Sustainable Agriculture and Natural Resources Sciences at Florida International University: An Interdisciplinary and Integrative Training Approach, January 2011 – July 2013.	Co-PI	\$240,000
USDA	Biofuel Science Education for Under-Represented Students at Florida International University, August 2010 – July 2013.	Co-PI	\$290,000

NSF	Linking Ecosystem Functioning with Ecosystem Services in a Neotropical Mangrove Estuary subject to Sea Level Rise and Changes in Freshwater Discharge, August 2010 – July 2012.	Co-PI	\$124,225
USDA	Internationalization of Environmental Studies Curriculum through Teaching and Research in Bio-fuel Production and Technology, August 2008 – August 2011.	PI	\$99,911
USDA	Curriculum Enrichment, Instrumentation and Experiential Learning in Agroecology, August 2008 – August 2012.	PI	\$290,000
USDA	Training Multicultural Undergraduate Scholars in Agriculture and Environmental Sciences at Florida International University, January 2009 – December 2014.	Co-PI	\$120,000
University of Miami	Coastal Resources Development and Management in Antigua and Barbuda: An Economic Modeling, October 2006 – December 2008.	PI	\$124,000
USDA	Multicultural Undergraduate Scholars in Agroecology and Urban Landscape at Florida International University: An Interdisciplinary Approach, August 2006 – July 2011.	Co-PI	\$120,000
USDA	Limits to Growth in Agriculture and Emerging Sustainable Farming Systems in Developing Countries, May 2006 – April 2008.	PI	\$100,000
Ford Foundation*	Coastal Resource Conservation Strategies and Enterprise Development for Sustainable Livelihood in India, January 2006-December 2007.	Co-PI	\$46,000
USDA	Curricular Development and Capacity Building in Agroecology Sciences, August 2005 – August 2008.	PI	\$230,000
USAID	Integrated Water Resources Management (IWRM) Assistance to USAID Missions Worldwide, 2004-2009. (Part of a major grant of \$3,750,000)	Co-Investigator	\$200,000
National Parks Service	Public Participation in Ecosystem Restoration: Development of an Agency Guide	Co-PI	\$79,000
FIU Foundation	Pricing Water Right in South Florida, July 2002- December 2002	PI	\$12,000
World Bank*	An Economic Analysis of Sustainability of Marine Fish Production in Karnataka, India, August 1999 - Summer 2001 (Indian Rs 700,000)	Co-PI	20,000
India Council of Agri Research*	Alternative Fishery Regulations and their Socio-economic Impacts in Karnataka, India, August 1997- July 2000 (Indian Rs. 550,000)	Co-PI	15,715

NSF	Planning Visit to India for a Research on Multi-tier Conflict Resolution in the Case of Biodiversity Patenting-Summer 1997	PI	\$2,130
FIU Foundation	Estimating Economic Benefits of the Florida Coral Reef Protection Plan, May 1996 - December 1996.	PI	\$13,589
FIU Minigrant	An Optimal Plant-Microbe Interaction Model for Bioremediation of PCB-Contaminated Soils, 1994.	PI	\$325
AAEA Foundation and IAAE	Travel Grant Award for Presenting a Paper at the International Conference of Agricultural Economist, Harare, Zimbabwe, August 1994.		\$1,500
USDA/SCS	Energy Production from Agriculture - SCS/RCA Analysis, May 92 - May 96 (with Burton English and others, Univ of Tennessee).	Co-PI	\$260,000
UT	The University of Tennessee Graduate School Travel Grant for delivering a scholarly presentation in professional meeting, Fall 1991.		\$350

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\*Funded through College of Fisheries, Mangalore, India.

## **PUBLICATIONS:**

\*Publications with students.

### **Refereed Article:**

Bhat, M. G., R. Bhatta, and M. Shumais, "User-based Financing of Environmental Conservation of the Maldivian Atolls: An Application of the Travel Cost Model. *Environmental Economics and Policy Studies*, 2011 (under review).

Corrales, J., \* G. M. Naja, R. Rivero, F. Miralles and M. Bhat. "Environmental Pollutant Exchange for solving Watershed Water Quality Problems." *Water Research*, 2011 (under review).

Sheahan, C.,\* D. Bray, M. G. Bhat and K. Jayachandran, "Ecological, Economic and Organizational Dimensions of Organic Farming." *Journal of Sustainable Agriculture*, 2011 (in press).

Reid-Grant, K. \* and M. Bhat, "Financing Marine Protected Areas in Jamaica: An Exploratory Study." *Marine Policy*, 33: 128-136, 2009.

Stone, K. \*, M. Bhat, R. Bhatta, A. Mathews, "Factors Influencing Community Participation in Mangroves Restoration: A Contingent Valuation Study." *Ocean & Coastal Management*, 51: 476-484, 2008.

Baral, N. \*, R. Gautam, N. Timilsina\*, M. G. Bhat, "A Contingent Valuation of Critically Endangered White-rumped Vulture *Gyps bengalensis* in South Asia." *International Journal of Biodiversity Science and Management*, 3: 1-12, 2007.

Bhat, M. G. and R. G. Huffaker, "Management of a Transboundary Wildlife Population: A Self-Enforcing Cooperative Agreement with Renegotiation and Variable Transfer Payments." *Journal of Environmental Economics and Management*, 53: 54-67, 2007.

- Bhat, M. G. and R. Bhatta, "Regional Economic Impacts of Limited Entry Fishery Management: An Application of Dynamic Input-Output Model" *Environment and Development Economics*, 11: 709-728, 2006.
- Bhat, M. G. and R. Bhatta. "Mechanization and Technical Interactions in Multi-species Indian Fisheries: Implications for Economic and Biological Sustainability." *Marine Policy*, 30: 237-248, 2006.
- Bhat, M. G. and R. Bhatta. "Considering Aquacultural Externality in Coastal Land Allocation Decisions in India," *Environmental and Resource Economics*, 29(1): 1-20, 2004.
- Chandrakanth, M. G., M. G. Bhat, and M. S. Accavva\*. "Socio-economic Changes and Sacred Groves in South India: Protecting a Community-based Resource Management Institution" *Natural Resource Forum*, 28(2): 102-111, 2004.
- Chandrakanth, M. G., B. Alemu\*, and M. G. Bhat. "Combating Negative Externalities of Drought: A Study of Groundwater Recharge through Watershed." *Economics and Political Weekly*, March 13, 2004: 1164-1170.
- Bhat, M. G. and A. Stamatiades\*. "Institutions, Incentives and Resource Use Conflicts: The Case of Biscayne Bay, Florida." *Population and Environment*, Vol. 26(4), 2003.
- Bhat, M. G. "Application of Non-Market Valuation to the Florida Keys Marine Reserve Management." *Journal of Environmental Management*, 67(4): 315-325, 2003.
- Alemu, B. \*, M. G. Chandrakanth, and M. G. Bhat. "Impact of Watershed Development Programme in Augmenting Groundwater Resource in Drought Situation." In *Watershed Management: Issues and Policies for 21st Century* K. Palanisami, D. Suresh Kumar and B. Chandrasekaran (Editors). 1st ed. New Delhi: Associated Publishing Company. 2002. pp. 341.
- Bhat, M. G. "On Biodiversity Access, Intellectual Property Rights, and Conservation." *Ecological Economics*, 29(3): 391-403, 1999.
- Bhat, M. G., K. R. Fister and S. M. Lenhart. "An Optimal Control Model for the Surface Runoff Contamination of a Large River Basin." *Natural Resource Modeling*, Vol. 12(2): 175-195, 1998.
- Bhat, M. G., R. R. Alexander, and B. C. English. "Toward Controlling Nonpoint Source Pollution of Groundwater: A Hierarchical Policy Formulation Game." *Natural Resource Modeling*, Vol. 11(4): 1-25, 1998.
- Bhatta, R. and M. G. Bhat. "Impacts of Aquaculture on the Management of Estuaries in India." *Environmental Conservation*, 25(2): 109-121, 1998.
- Bhat, M. G., R. G. Huffaker, and S. M. Lenhart. "Controlling Transboundary Wildlife Damage: Modeling under Alternative Management Scenarios." *Ecological Modeling*, 92:215-224, 1996.
- Bhat, M. G. "Trade-Related Intellectual Property Rights to Biological Resources: Socioeconomic Implications for Developing Countries." *Ecological Economics*, 19: 205-217, 1996.
- Bhat, M. G., D. E. Ray and B. C. English. "The Flexible Planting Program: Divergent National and Regional Economic Impacts." *International Journal of Public Administration*, 18(1): 149-165, 1995.
- Bhat, M.G. "Troubled Fur Trade and Implications for Wildlife Damage Management." *Choices* (The Magazine of Food, Farm, and Resource Issues of the American Agricultural Economic Association), Fourth Quarter, 1994, p. 37-38.

Bhat, M. G., R. G. Huffaker and S. M. Lenhart. "Controlling Forest Damage by Dispersive Beaver Populations: Centralized Optimal Management Strategy." *Ecological Applications*. 3(3):518-530, 1993.

Bhat, M. G., K. C. Hiremath and H. Basavaraj. "An Economic Enquiry into the Adoption of High-Yielding Cereal Varieties in Karnataka." *Prajnan: Journal of Social and Management Sciences*, 22(1):37- 48, April-June 1993.

Bhat, M. G. and R. G. Huffaker. "Private Property Rights and Forest Preservation in Karnataka Western Ghats, India: Reply" *American Journal of Agricultural Economics*, 75(2): 496-498, May 1993.

Huffaker, R. G., M. G. Bhat, and S. M. Lenhart. "Optimal Trapping Strategies for Diffusing Nuisance-Beaver Populations." *Natural Resources Modeling*, Vol. 6(1): 71-97, 1992.

Lenhart S. M. and M. G. Bhat. "Application of Distributed Parameter Control Model in Wildlife Damage Control Management." *Mathematical Models and Methods in Applied Sciences*, 4(2): 423-439, 1992.

Bhat, M. G. and R. G. Huffaker. "Private Property Rights and Forest Preservation in Karnataka Western Ghats, India." *American Journal of Agricultural Economics*, 73(2): 375-87, May 1991.

### ***Book Chapters***

Bhat, M. G. "Property Rights and Externalities." In *21<sup>st</sup> Century Economics: A Reference Handbook*, Rhona Free (Editor). Sage Publications, 2010, p. 227-236.

Alemu, Bisrat, M. G. Chandrakanth, and Mahadev G. Bhat. "Impact of Watershed Development Programme in Augmenting Groundwater Resource in Drought Situation." In *Watershed Management: Issues and Policies for 21st Century*, K. Palanisami, D. Suresh Kumar and B. Chandrasekaran (Editors). 1st ed. New Delhi: Associated Publishing Company. 2002. pp. 341.

### ***Book Reviews***

A book review of Classic Papers in Natural Resource Economics by C. Gopalakrishnan. New York: St. Martin's Press, Inc., 2000, 348 pp., for *American Journal of Agricultural Economics*, January 2001.

### ***Research Reports, Project Reports and Theses***

Bhat, M. G. Multiple chapters on **Water Markets, Payment for Environmental Services, Regulatory and Market-based Water Allocation** in *Water Guide*, to be published by US Agency for International Development, 2011.

Onsted, J., M. G. Bhat, K. Jayachandran, and "Limits to Growth in Agriculture and Sustainable Farming Systems." Final Technical Report Submitted to the US Department of Agriculture under the Cooperative Agreement 2006-51160-03409, Department of Earth and Environment, Florida International University, Miami, July 2010.

Mahadev Bhat, Doris Ombara, Michael McClain, George Atisa, and William Kasanga, *Payment for Watershed Services in the Mara River Basin*. Global Water for Sustainability Program, Florida International University, 2010, 41p.

Bhat, M. G., G. Philippidis, K. Jayachandran, A. Melesse. "Internationalization of Biofuel Research, Curriculum and Business Promotion." Half-Year Progress Reports Submitted to the Department of

Agriculture under the Cooperative Agreement 2008- 51160-04356, Department of Environmental Studies, Florida International University, Miami, for periods ending:

August 2011, August 2010, June 2009 and December 2008 (four reports)

Bhat, M. G., K. Jayachandran, A. Melesse, J. Onsted, and S. Koptur. "Curriculum Enrichment, Instrumentation, Experiential Learning in Agroecology." Annual Progress Reports Submitted to the Department of Agriculture under the Cooperative Agreement 2008-38422-19209, Department of Earth and Environment, Florida International University, Miami, for the period ending:  
July 2009, July 2010, July 2011.

Bhatta, R., M. G. Bhat, and M. Shumais. "Economic Valuation of Marine Resources of Maldives." Technical Report Submitted to South Asian Network for Development and Environmental Economics, Environmental Protection Agency, Ministry of Housing, Transport and Environment, Republic of Maldives, Male, July 2009.

Bhat, M. G., K. Jayachandran, A. Melesse, J. Onsted, and S. Koptur. "Curriculum Enrichment, Instrumentation, Experiential Learning in Agroecology." Progress Report Submitted to the External Evaluator under the Department of Agriculture's Cooperative Agreement 2008-38422-19209, Department of Environmental Studies, Florida International University, Miami, February 2009.

Bhat, M. G., J. Onsted, M. Alen, K. Jayachandran, A. Melesse, and A. Ravinet. "Limits to Growth in Agriculture and Sustainable Farming Systems." Half-Yearly Progress Reports Submitted to the US Department of Agriculture under the Cooperative Agreement 2006-51160-03409, Department of Environmental Studies, Florida International University, Miami, for periods ending:

June 2009, December 2008, June 2008, December 2007, June 2007, September 2006 (a total of Six reports).

Bhat, M. G., K. Jayachandran, A. Melesse, and S. Koptur. "Curriculum Development, Curricular Development and Capacity Building in Agroecology Sciences." Annual Technical Reports Submitted to the US Department of Agriculture under the Cooperative Agreement 2005-38422-15940, Department of Environmental Studies, Florida International University, Miami, for periods ending:

July 2008, July 2007, July 2006 (a total of three reports)

Bhat, M. G., M. Alen, K. Jayachandran, A. Melesse, and A. Ravinet. "Limits to Growth in Agriculture and Sustainable Farming Systems." Progress Report (May 2006- December 2007) Submitted to the External Evaluator under the US Department of Agriculture's Cooperative Agreement 2006-51160-03409, Department of Environmental Studies, Florida International University, Miami, January 2008.

Bhat, M. G., K. Jayachandran, A. Melesse, and S. Koptur. "Curriculum Development, Curricular Development and Capacity Building in Agroecology Sciences." Annual Progress Report (Year 2: 2006-07) Submitted to the External Evaluator under the US Department of Agriculture's Cooperative Agreement 2005-38422-15940, Department of Environmental Studies, Florida International University, Miami, January 2008.

Bhat, M. G., K. Jayachandran, A. Melesse, and S. Koptur. "Curriculum Development, Curricular Development and Capacity Building in Agroecology Sciences." Annual Progress Report (Year 1: 2005-06) Submitted to the External Evaluator under the US Department of Agriculture's Cooperative Agreement 2005-38422-15940, Department of Environmental Studies, Florida International University, Miami, October 2006.

Bhat, M.G., K. Lipartito, L. Ogden, and D. Dustin. "A Handbook for Agencies for Engaging the Public in the Ecosystem Restoration Programs in South Florida." Annual progress reports submitted to the National

Park Services, under the cooperative agreement #1443CA5280-010016, Department of Environmental Studies, Florida International University, Miami, Florida, for periods ending:

September 2003, May 2003, August 2002 (a total of three reports)

Ogden, L., M. G. Bhat, K. Lipartito and D. Dustin. "A Handbook for Agencies for Engaging the Public in the Ecosystem Restoration Programs in South Florida." A technical report submitted to the National Park Services, Department of Environmental Studies, Florida International University, Miami, Florida, 2003.

Bhat, M. G. and R. Bhatta. An Economic Analysis of Sustainability of Marine Fish Production in Karnataka, India, Submitted to Indira Gandhi Institute for Development Research, Mumbai Under World Bank Aided India: Environmental Capacity Building Technical Assistance Project, October 2001.

Bhatta, R., K. Aruna Rao, M. G. Bhat, G. Sagarad, and K. Shilpakala. Alternative Fishery Regulations and their Impacts on Employment Generation and Demographic Transition in the Maritime State of Karnataka. Research Report Submitted to Indian Council of Agricultural Research, New Delhi, August 2000.

Alexander, R.R. and M.G. Bhat. Agricultural Policy and Social Welfare: A Game-Theoretic Rationalisation. Discussion Paper No. 98.04, Department of Applied and International Economics, Massey University, Palmerston North, New Zealand, March 1998.

Bhat, M.G. US-India Planning Visit: Research on Multi-tier Conflict Resolution to the Case of Biodiversity Patenting. Final Trip Report Submitted to the National Science Foundation, September 1997.

Bhat, M. G. "Economic Development." in Ecotourism Feasibility Checklist, FIU Ecotourism Council, 1996.

Bhat, Mahadev G., Duncan M. Chembezi, Scott T. Bush, Daniel G. De La Torre Ugarte, and Daryll E. Ray. 'An Economic Analysis of U.S. Tobacco Industry: Implications of a Federal Cigarette Increase.' University of Tennessee Agricultural Experiment Station Staff Paper No. I-95, Agricultural Policy Analysis Center (APAC), The University of Tennessee, Knoxville, Tennessee, March 1995.

Bhat, Mahadev, Burton English, Anthony Turhollow, and Hezron Nyangito. Energy in Synthetic Fertilizers and Pesticides: Revisited. Research Report # ORNL/Sub/90-99732/2, Oak Ridge National Laboratory, Oak Ridge, Tennessee, January 1995.

Bhat, Mahadev, Burton English, and Anthony Turhollow. Environmental Impacts of Producing Biomass Energy Crops on Iowa Farms. Research Report # ORNL/Sub/90-?/? , Oak Ridge National Laboratory, Oak Ridge, Tennessee, January 1995.

Bhat, Mahadev, Burton English, Mathew Ojo, and Anthony Turhollow. Regional Costs of Transporting Biomass Feedstocks. Research Report # ORNL/Sub/90-?/? , Oak Ridge National Laboratory, Oak Ridge, Tennessee, August 1994.

Bhat M.G., D.E. Ray, D.M. Chembezi, and D.G. Ugarte, The National Tobacco Simulation Model (TOBSIM), An unpublished document on the FORTRAN codes of the TOBSIM model, Agricultural Policy Analysis Center, The University of Tennessee Institute of Agriculture, Knoxville, August 1994.

Bell Caroline, Mahadev Bhat, Jorge Huarachi, Paul Jakus, Paul Seigel, and Burton English. Economic and Environmental Regional Impacts of Agricultural Conservation Efforts: Case Study - Region 12 and the Conservation Reserve Program. Research Grant Report to Soil Conservation Service, The Department of Agricultural Economics and Rural Sociology, The University of Tennessee, Knoxville, August 1994.

Bell Caroline, Burton English, Paul Seigel, Paul Jakus, and Mahadev Bhat. Economic and Environmental Regional Impacts of Agricultural Conservation Efforts: Methodological Approach for Evaluating Local

Benefits of Conservation Efforts. Research Grant Report to Soil Conservation Service, The Department of Agricultural Economics and Rural Sociology, The University of Tennessee, Knoxville, August 1994.

Bhat, M. G., D. M. Chembezi, D. G. Ugarte, and D. E. Ray. Regional Impacts of the 1993 Flood Disaster: The Case of Tennessee Agriculture. APAC Staff Paper No. 2-94, Agricultural Policy Analysis Center, The University of Tennessee Institute of Agriculture, Knoxville, May 1994.

D. M. Chembezi, D. G. Ugarte, D. E. Ray and M. G. Bhat. Economic Impacts of the 1993 Midwest Flood Disaster on U.S. Agricultural Sector. APAC Staff Paper No. 1-94, Agricultural Policy Analysis Center, The University of Tennessee Institute of Agriculture, Knoxville, March 1994.

Bhat, M. G., D. E. Ray and B. C. English. Regional Economic Impacts of Farm Commodity and Environmental Regulations: An Integrated Modeling Approach. Research Report # E11-1216-00-001-93, Agricultural Policy Analysis Center, The University of Tennessee, Knoxville, August 1992.

English, B.C., R.R. Alexander, Robin Graham and M.G. Bhat. Supply of Short Rotation Woody Crop Biomass to the Wattsbar Power Facility. Research Report # 92-?? Department of Agricultural Economics and Rural Sociology, The University of Tennessee, Knoxville, May 1992.

Bhat, M. G. Controlling Wildlife Damage by Diffusing Beaver Population: A Bioeconomic Application of the Distributed Parameter Control Model. Unpublished Ph.D. Dissertation, The University of Tennessee, Knoxville, TN, December 1991.

Bhat, M. G. "Corn Production in Tennessee." A Statistical Description of Agriculture in Tennessee, 1960-1990, ed. K. H. Loewen, et.al., Research Report # 91-17, Department of Agricultural Economics and Rural Sociology, The University of Tennessee, August 1991.

Bhat, M. G. and K. C. Hiremath. An Economic Enquiry into Constraints of Adoption of High Yielding Cereal Varieties in Karnataka (India). Agricultural Economics Bulletin No. 14, College of Agriculture, Dharwad, 1985.

Bhat, M. G. An Economic Enquiry into Constraints of Adoption of High Yielding Cereal Varieties in Karnataka. Unpublished M.Sc. Thesis, University of Agricultural Sciences, Dharwad, 1983.

#### ***Press Conference:***

"Global Warming Solution" Presented at the Press Conference Organized by the Friends of Florida Environment, Miami, June 2008.

"The Environmental Impacts of Commercial Aquaculture on Coastal Ecosystem in Karnataka." Mangalore, Karnataka, India, July 1997.

"Forest Preservation in Uttara Kannada District." Sirsi, Karnataka, India, March 1993.

#### ***Conference Proceedings:***

Bhat, M. G. "Trade-Related Intellectual Property Rights for Genetic Resources: Implications for Developing Countries." in G. H. Peters and D. D. Hedley (eds.), *Agricultural Competitiveness, Market Forces and Policy Choice*, Proceedings of the XXII International Conference of Agricultural Economists, Brookfield: Dartmouth, 1995, pp. 485-495.

Bhat, M. G. and B. C. English. "An Optimal Staggered Harvesting and Distribution Strategy for Herbaceous Biomass Energy Crops." Proceedings of the *First Biomass Conference of The Americas:*

*Energy, Environment, Agriculture, and Industry*, Vol. 1, NREL/CP-200-5768, National Renewable Energy Laboratory, Golden, Colorado, August 1993, p. 265-271.

Alexander, R. R., B. C. English, M. G. Bhat and R. L. Graham. "Evaluating the Economics of Biomass Energy Production in the Watts Bar Region." Proceedings of the *First Biomass Conference of The Americas: Energy, Environment, Agriculture, and Industry*, Vol. 1, NREL/CP-200-5768, National Renewable Energy Laboratory, Golden, Colorado, August 1993, p. 272-277.

Bhat, Mahadev G. and Daniel G. De La Torre Ugarte. "Economic Analysis for Tennessee Agriculture." *U.S. and Tennessee Agriculture in the 1990s*, Proceedings of the 1993 Agricultural Policy Conference, The Agricultural Policy Analysis Center, The University of Tennessee, Knoxville, Tennessee, 1993.

Bhat, Mahadev. G., Robert Gotie and Luther Keller. "The Impact of European Community's Humane Trapping Resolution on the US Wildlife Damage Control Program." *The Proceedings of 11th Great Plains Wildlife Damage Control Workshop*, Kansas City, MO, April 1993.

Bhat, M. G., B. C. English, M. Ojo. "Regional Cost of Transporting Biomass Feedstocks." *Liquid Fuels from Renewable Resources*, Ed. J. S. Cundiff, Proceedings of an Alternative Energy Conference, American Society of Agricultural Engineers, St. Joseph, MI, December 1992, pp.50-57.

Ray, D. E., B. English, R. White, R. Pendergrass and M. G. Bhat. "Economic Impacts of Sustainability on Southern Farms." *Sustainable Agriculture: Enhancing the Environmental Quality of the Tennessee Valley Region Through Alternative Farming Practices* - Symposium and satellite teleconference Proceedings, Knoxville, TN, March 1992, pp. 51-67.

English, B. C, T. Robertson, Mahadev Bhat, and Gary Bullen. "On-farm Economic and Environmental Impacts of Cover on Corn Silage Ground on a Limited-Resource-Based Tennessee Dairy Farm." *Cover Crops for Clean Water*, ed. W. L. Hargrove, pp. 193-196, 1991.

***Refereed Conference Presentations (Selection Based on Abstracts):***

Alvarez-Ventura, S.,\* M. Bhat, and K. Jayachandran. "Engaging Urban K-12 Agriculture-Science Education by Training the Trainers." Presented at the North American Colleges and Teachers of Agriculture Annual Conference, Edmonton, Canada, June 2011.

Velez, T.,\* M. Bhat, and K. Jayachandran. "The Role of Co-curricular Education in Enhancing Class Room Agricultural Science Program in an Urban University." Presented at the North American Colleges and Teachers of Agriculture Annual Conference, Edmonton, Canada, June 2011.

Jungman, A.,\* M. Bhat, and K. Jayachandran. "Internalization of Agricultural Curriculum at Florida International University: Evaluation of Student Experiential Learning Outcome." Presented at the North American Colleges and Teachers of Agriculture Annual Conference, Edmonton, Canada, June 2011.

Dewsbury, B.,\* M. Bhat, and J. Fourqurean. "An optimal solution for the valuation of seagrass ecosystems." Presented at the US Ecological Economics Society Conference, June 2011.

Bhat, M. G. and K. Jayachandran. "Agriculture Science Education in Minority-Serving, Urban Universities: Service Learning, Collaboration, and Community Engagement." Presented at the North American Colleges and Teachers of Agriculture Annual Conference, State College, Pennsylvania, June 2010.

Atisa, G.\* , M. G. Bhat and M. McClain. "Economic Assessment of Best Management Practices in the Mara River Basin, Kenya: Toward Implementing Payment for Watershed Services." Paper presented at the US Society for Ecological Economics, Washington, DC., May 2009.

Bhat, M., M. McCain, G. Atisa\* , D. Ombara and W. Kasanga. "Payment for Environmental Services in the Mara River Basin of Kenya and Tanzania: Challenges and Opportunities," Presented at the International Society for Ecological Economics Conference held in Nairobi, Kenya, August 2008.

S. Varghese, A. V. Manjunatha, K. N. Poornima, B. M. Akarsha, N. Rashmi, P. B . Tejaswi, B. C. Saikumar, A. K. Jeevarani, M. S. Accavva, T. S. Amjath Babu, M. S. Suneetha, P. M. Unnikrishnan, R. S. Deshpande, N. Nagaraj, H. Chandrashekar, M. G. Bhat, P. G. Chengappa, S. M. Mundinamani, T. R. Shanmugam, and M. G. Chandrakanth. "Valuation of Externalities in Water, Forest and Environment for Sustainable Development." 2008 European Association of Applied Economics Conference, August 2008.

Bhat, M., L. H. Gladwin, G. Hollander, L. Ogden, J. Onsted, R. Roy Chowdhury, R. Tardanico, R. Garvoille. 2008. "Human Dimensions Working Group." Paper presented at the Florida Coastal Everglades All Science Meeting. Coral Gables, FL March 17, 2008.

Jayachandran, K., M. Bhat, G. Bobeche\* , C. Clark-Cuadrado\* , and A. Melesse. "Agroecology Program at Florida International University." Paper presented at the ASA-CSSA-SSSA International Annual Meetings, Indianapolis, November 12-16, 2006.

Stone, K.\* , M. G. Bhat and R. Bhatta. "Shrimp Aquaculture in Florida: A Sustainable Model." Poster accepted for presentation at the ASA-CSSA-SSSA International Annual Meetings, Indianapolis, November 12-16, 2006.

Taylor, L.\* and M. G. Bhat. "An Assessment of Public Engagement in the Everglades Restoration Projects." Presentation at the Joint Conference of the Science and Restoration of the Greater Everglades and Florida Bay Ecosystem, Palm Harbor, Florida, April 2003.

Rivera, C.\* and M. G. Bhat. "Water Pricing as a Conservation Tool: An Economic Analysis of the Lower East Coast of South Florida Water Utilities." Accepted for presentation at the Joint Conference of the Science and Restoration of the Greater Everglades and Florida Bay Ecosystem, Palm Harbor, Florida, April 2003.

M. G. Bhat. "Exclusivity and Expropriation in Bioprospecting: Endogenous Rent Determination for Biodiversity Conservation." Presented at the 2002 World Congress of Environmental and Resource Economists, Monterey, California, June 24 - 27 2002.

Chandrakanth, M. G. and M. G. Bhat. "Institutions, Markets and the Management of Common Property Sacred Groves in India." Presented at the 2002 World Congress of Environmental and Resource Economists, Monterey, California, June 24 - 27 2002.

M. G. Bhat, Marino Sebastian\* , Ken Lipartito, and Irma Alanso. "Land-use Changes and Flood Protection Policies in South Florida." Presented at the Greater Everglades Ecosystem Restoration Conference, Naples, Florida, December 11-15, 2000.

M. G. Bhat. "Protecting Indigenous Knowledge under the New International Intellectual Property Rights Regime." Presented at the International Society for Ecological Economics Conference at Canberra, Australia, July 5-9, 2000.

M. G. Bhat and R. Bhatta. "Aquaculture and Sustainable Coastal Land Management: An Ecological Economic Model of Resource Interactions." Presented at the International Society for Ecological Economics Conference at Canberra, Australia, July 5-9, 2000.

M. G. Bhat and R. Bhatta. "Optimal Coastal Land Allocation Decisions: A Model of Interactive Renewable and Non-renewable Resources" Paper presented at the 1999 World Conference on Natural Resource Modeling, Halifax, Canada, June 1999.

Alexander, R. and M. G. Bhat. "Modeling Natural Resource Policy as a Hierarchical Stackelberg Game." Paper presented at the 41st Annual Conference of the Australian Agricultural and Resource Economics Society, Gold Coast, Queensland, Australia, January 1997.

Chembezi, Duncan M., Scott T. Bush, and Mahadev G. Bhat. 'Proposed Regulatory Policies and the Future of Tobacco Production in Selected Southern States.' Paper presented at the Missouri Valley Economic Association (MVEA) Thirty-Second Annual Meeting, Memphis, Tennessee, March 7-9, 1996.

Chembezi, D. M., R. M. Pendergrass, M. G. Bhat, S. Bush, J. Huarachi and D. E. Ray. "State, Community, and Farm-Level Impacts of Increasing Cigarette Excise Tax: The Case of Tennessee, Virginia and Ohio." Poster Presentation at the American Agricultural Economics Association Meeting; abstract published, *American Journal of Agricultural Economics*, 60(1995): 1353.

Bhat, Mahadev G., Duncan M Chembezi, Daniel G. De La Torre Ugarte, and Daryll E. Ray. 'Economic Impacts of a Cigarette Tax Increase on the U.S. Tobacco Industry.' Abstract Published in *Journal of Agricultural and Applied Economics*, 27(1)(1995), pp 315.

Alexander, R., M. G. Bhat and B. C. English. "Considering Environmental Impacts in Target Price Policy." Selected poster presentation at the American Agricultural Economics Association Meeting, Orlando, FL, August 1993.

Bhat, M. G. "The Success and Failures of Property Right Systems; Mutual Lessons for Developing and Developed Countries." Selected paper presentation at the Soil and Water Conservation Society Meeting, August 1993; abstract published.

Bhat, M. G., B. C. English and A. Turhollow. "Biomass Energy Crops: A New Option for Improving Water Quality in Intensive Agricultural Production System." Selected paper presentation at the Soil and Water Conservation Society Meeting, August 1993; abstract published.

Bhat, M. G. "Management of Transboundary Wildlife Populations: A Differential Game-theoretic Planning." Paper presentation at the Twelfth Pacific Coast Resource Modeling Conference, Tucson, Arizona, May 1993.

Bhat, M. G., and L. H. Keller. "Centralized Community Approach for Managing Wildlife Damage." Poster Presentation at the American Agricultural Economics Association Annual Meeting, Baltimore, MD, August 1992; abstract published *American Journal of Agricultural Economics*, 74(1992): 1310.

Pendergrass, Robert, Mahadev Bhat and Daryll Ray. "Community Level Impact of Limited Input Sustainable Agriculture on a Small Tennessee Watershed." Poster presentation at the American Agricultural Economics Association Annual Meeting Baltimore, MD, August 1992; abstract published, *American Journal of Agricultural Economics*, 74(1992): 1311.

Alexander, R.R., B.C. English, M.G. Bhat, M.A. Ojo and R.G. Bowling. "The Economic Impacts of Biomass Energy Production in the Watts Bar Region." Poster presentation at the American Agricultural Economics Association Annual Meeting, Baltimore, MD, August 1992; Abstract published, *American Journal of Agricultural Economics*, 74(1992): 1309.

Graham, Robin, M Downing, B.C. English, R.R. Alexander and M.G. Bhat. "Projecting the Environmental Effects of Energy Crop-Development in the TVA Region." Presented at the SAMAB Conference, Gatlinburg, TN, November 1992.

Graham, R., B.C. English, R.R. Alexander and M.G. Bhat. "The Production of Biomass Feedstock for a Proposed Power Facility: Projecting Regional Land Use Changes and Their Environmental Consequences." Presented at the Seventh Annual U.S. Landscape Ecology Symposium, Corvallis, OR, April 1992.

Graham, Robin, B.C. English, R.R. Alexander and M.G. Bhat. "Production of Biomass for an Energy Facility: Projecting Regional Land Use Changes and Their Environmental Consequences." Paper presented at the Walker Branch Watershed Symposium, Oak Ridge, TN, March 1992.

Bhat, M. G., B. C. English, and A. Turhollow. "Biofuels from Energy Crops: Economics and Environmental Impacts." Poster presentation at the American Agricultural Economics Association Annual Meeting, Manhattan, Kansas, August 1991; Abstract published, *American Journal of Agricultural Economics*, 73(1991): 1557.

Bhat, M. G., S. M. Lenhart, and L. H. Keller. "Optimizing Wildlife Damage by Diffusing Furbearer Population on the Southern Forests: A Bioeconomic Model." Poster presentation at the Fifth Eastern Wildlife Damage Control Conference, Ithaca, New York, October 1991.

English, Burton C., and Mahadev G. Bhat. "Economic and Environmental Aspects of Producing Selected Energy Crops." Paper presented at the American Agricultural Economics Association Annual Meeting, Manhattan, Kansas, August 1991.

***Refereed Conference Presentations (Selection Based on Full-length articles):***

Bhat, M. G., T. Rajendra\* and M. G. Chandrakanth. "Strategic and Stock Externalities in Common Property Groundwater Management Policies." Presented at the 2006 World Congress of Environmental and Resource Economists Monterey, Kyoto, Japan, July 2006.

Bhat, M. G., R. R. Alexander and B. C. English. "Toward Controlling Nonpoint Source Pollution of Groundwater: A Hierarchical Policy Formulation Game." Contributed paper presented at the Australian Agricultural and Resource Economics Society conference, Christchurch, New Zealand, January 22, 1999.

Bhat, M. G. and R. Bhatta. "Irreversible Environmental Development and the Survival of Subsistence Agriculture in Coastal India." Presented at the XXIII International Conference of Agricultural Economics, Sacramento, California, August 1997.

Bhat, M. G. "Intellectual Property Rights in Biological Resources and Optimal Extinction." Selected paper presentation at the Association of Environmental and Resource Economists Meetings, January 1995.

Bhat, M. G., D. M. Chembezi, D. G. De La Torre Ugarte, and D. E. Ray. "Economic Impacts of a Cigarette Tax Increase on U.S. Tobacco Industry." Paper presented at the Southern Agricultural Economists Association, New Orleans, January-February 1995, abstract published, *Journal of Agricultural and Applied Economics*, 27(1995):315-316.

Bhat, M. G. and R. G. Huffaker. "Optimal Control of Nuisance Wildlife Populations on a Shared Animal Habitat: Some Game-theoretic Considerations." Selected paper presentation at the American Agricultural Economics Association Meeting, Orlando, Florida, August 1993; Abstract published, *American Journal of Agricultural Economics*, 75(1993): 1309.

***Invited Conference Presentations:***

"Management Applications of Bioeconomic Models for Migratory Wildlife Species." Paper presented at the *Sixteenth Vertebrate Pest Conference*, Santa Clara, California, March 1994.

"Regional Costs of Biofuel Production." Poster presented at the *Biofuels Feedstock Development Program's (BFDP) Annual Workshop*, Davis, California, September 1991.

***Panel Discussion:***

"Urban Agriculture and Agroecology for Sustainable, Healthy and Local Food." At the *Ecological Integrity: Connecting Humans, Health and Habitat* Conference organized by Center for Earth Jurisprudence, July 2010.

"Crisis and Opportunity: Critical Environmental Issues Facing South Florida" Opening Remarks at the FIU College of Law's 1<sup>st</sup> Annual Earth Day Panel discussion, April 2005.

"Sustainable Food Production on Small-scale Farms." Presented during the Expert Panel Discussion on the occasion of the World Food Day Celebration at FIU, 2003.

"Agriculture and Water Resource Problems in Developing Countries." Panel Discussion, Earth Day Celebration, Florida International University, Miami, FL, 1994.

"Soil and Water Conservation: Is a New Balance between Private Property Rights and Responsibilities Needed?" *1992 Berg Fellowship - Public Conservation Policy Forum*, Soil and Water Conservation Society Annual Meeting, Baltimore, MD, August 1992.

***Popular Magazines, Newsletters, and Reports:***

Bhat, M. G. and M. McClain, "Exploring the Role of Payment for Environmental Services in River Basin Management: The case of the Mara River Basin of East Africa," *Basins and Coast News*, 2(2): 2-7, July 2008.

M. G. Bhat, K. Lipartito, and T. Rice. "FIU Research Group To Address Human Dimensions of Ecosystem Restoration." FIU-SERC NewsLetter, July 2000.

M. G. Bhat and K. Lipartito. "Integration of Behavioral Sciences into the South Florida Environmental Restoration: Portfolio for Research and Outreach." A Marketing Document Prepared for the FIU Human Dimensions of the South Florida Environment Group, August 1999.

Bhat, M. G. "Short-Term Forecast for Tennessee Agriculture." in W. F. Fox and P. A. Price (eds.), *An Economic Report to the Governor of the State of Tennessee: On the State's Economic Outlook*. Center for Business and Economic Research, The University of Tennessee, Knoxville, January 1994.

Bhat, M. G. and R. White. "EEC's Wild Fur Regulations and Wildlife Damage Implications." *The Probe*. Issue 122, June 1992.

***Invited Papers, Seminars, Testimony and Presentations:***

"Agroecology: Its Relevance for the New Decade and the Future." Miami Dietetic Association, Miami, October 2011.

"Collaborative Grants Development." National Federal Grants Conference & Webcast, US Department of Agriculture, Miami, Florida, October 21, 2011.

“Internalization of biofuel research, curriculum, and business promotion: Annual Progress Report for Period ending August 2011.” Presented at the National Project Directors Meeting, US Department of Agriculture, National Institute of Food and Agriculture, Washington, DC. June 2011.

“Agroecology Program at FIU.” Presented at the Teleconference of USDA Foreign Agricultural Service and FIU, jointly put together by the FIU Office of Community Engagement and UADA, April 2011.

“Economic framework for ecosystem services valuation.” Water Resources Sustainability, an NSF-funded Research Workshop, Florida International University, March 2011.

“Biofuel Technology, Institution, and Economics: Experiences of Developing Countries,” Preparing Small and Medium Size Business Enterprises for a Green Energy Future, FIU Energy Security Forum, Miami, March 2011 (moderated with nine FIU student poster presentations).

“User-based Financing of Maldivian Atolls: Application of Travel Cost Model.” Presented to the Environmental Protection Agency, Male, Maldives, August 2010.

“The Return of Urban Food Gardens in America: Taking Control of our Own Food Production.” Presented at the Marine Environmental Initiative, Biscayne Bay Campus, Florida International University, April 2009.

“Payment for Watershed Services.” Presented at the Center for Economic and Social Studies, Hyderabad, India, March 2009.

“Game-theoretic Modeling in Groundwater Management” Presented at the University of Agricultural Sciences, Dharwad, India, March 2009.

“Criteria for Identifying Hispanic Serving Agricultural Colleges and Universities as Land Grant Colleges under the 2008 Farm Bill.” Testimony presented at the USDA Public Hearing Session on behalf of the Florida International University, Denver, October 2008.

“Payment for Environmental Services in the Mara River Basin: Preliminary Findings.” Presented at the World Wildlife Fund, Nairobi, Kenya, August 2008.

“Payment for Environmental Services in the Mara River Basin: Challenges and Opportunities.” Presented at the US Agency for International Development, Nairobi, Kenya, August 2008.

“Agroecology Program at FIU.” 7th Annual South Florida Environmental Ethics Conference, Virginia Keys, Florida, February, 2008.

“Economics of water markets” Guest Lecture presented at the Integrated Water Resources Management course offered by Michael McClain, November 2007.

“Sustainability in Small-Scale Production Systems of Plantation Agriculture in India” Miami South Ridge Senior Highschool, March 2008.

“Environmental Economics and Sustainable Development.” Guest Lecture presented at the Global Environmental Issues class by Jack Parker., November 2006.

“Environmental Issues in Japan.” Guest Lecture to FIU JapNet Program, Asian Studies Institute, Florida International University, February 2007.

“Emerging Asian Environmental Issues.” Guest Lecture to Modern Asian Issues class, February 2007.

"Financing Marine Protected Areas" Guest Lecture presented for the FIU-UNAM distance learning course on coastal resource management, November 2005.

Made two presentations on the new FIU agroecology program at a three-day national workshop of the Project Directors of grants under the 2005 USDA Hispanic-Serving Institutes Higher Education Program, March 2006.

"Economics of Water Markets" Guest Lecture presented at the Ecotoursim course, November 2006.

"Behavioral Sciences of the Everglades Restoration: A Missing Piece from the Puzzle." A Statement Presented to the Committee on Restoration of the Greater Everglades Ecosystem of the National Research Council, Hollywood, Florida, December 2-3, 1999.

"Socioeconomic Study of Reefs in South East Florida" Proposal Presentation to the Department of Planning and Management, Environmental Division, Broward County Government, Fort Lauderdale, November 1999.

"FIU Human Dimensions of the South Florida Environment Group And Behavioral Science Research." Presented to the Science Coordination Team of the South Florida Ecosystem Task Force, Davie City, October 1999.

"Integration of Behavioral Sciences in to the South Florida Ecosystem Restoration Efforts." Presented to Miami-Dade Brown Field Redevelopment Plan Implementation Committee, Miami, August 1999.

"Economics and the Environment." Guest lecture to FIU Liberal Studies Students, October 1998.

"Legal and Economic Instruments for the Protection of the Environment." An invited speech at the Dakshina Kannada Parisarasaktha Okkoota, Mangalore, July 1997.

"Coastal Aquaculture: A Model for Sustainable Coastal Resource Development in India." Fourth Annual Dr. V. G. Jhingran Memorial Lecture, Asian Fisheries Society, Mangalore, July 1997.

"An Ecological Economic Model for Estuary Management." Graduate Seminar Series, Environmental Studies Department, FIU, March 1997.

"Controlling Migratory Nuisance-beaver Populations on a Shared Habitat: Some Game-theoretic Considerations." Presented at the FIU Economics Department, November 1996.

"Environmental Planning and Sustainable Community." presented to the students of Sustainable Community Development" FIU School of Design, October 1996.

"Bio-socio-economic Aspects of Fisheries Management." Fisheries College, University of Agricultural Sciences, Mangalore, India, July 1995.

"Impact of Intellectual Property Rights on Biodiversity." Mangalore University, Mangalore, India, July 1995.

"Mathematical and Statistical Models for the Management of Natural Resources." Statistics Department, Mangalore University, Mangalore, India, July 1995.

"Is Sustained Development without Environmental Protection Possible?" Rotary Club's Weekly Seminar, Sirsi, India, March 1993.

"An Integrated National, State and Farm Level Modeling System for Agricultural Policy Impact Analysis." Department of Agricultural Economics, University of Agricultural Sciences, Dharwad, India, March 1993.

"Developing Biomass Production Systems." Paper presented to the USDA Soil Conservation Service, Washington, D.C., November 1992.

"From My Research Experiences in Mathematical Modeling in Natural Resource Economics." Lecture presented in the Undergraduate Summer Program, The University of Tennessee, Knoxville, July 1992.

"Sustainable Agriculture in a Tricounty Area of Northwestern Tennessee." Presented at the Meeting of East Tennessee Chapter of Soil and Water Conservation Society, Knoxville, March 1992.

"Controlling Wildlife Damage by Diffusing Beaver Population: A Bioeconomic Application of the Distributed Parameter Control Model". Paper presented at Control Seminar, Department of Mathematics, The University of Tennessee, Knoxville, September 1991.

"Optimal Trapping Strategy for Diffusing Beaver Populations." Paper presented at Systems Seminar, Department of Electrical Engineering, University of Tennessee, Knoxville, March 27, 1991.

"Project Lending for Development of Coconut Plantation in Puri District of Orissa State, India: A Cost-Benefit Analysis." A Group Project Presented at College of Agricultural Banking, Pune, India, April 1985.

#### ***Symposia and Workshops Organized:***

"Local Food Movement: Farm-Level Production Reality, and Successful Business and Marketing Strategies," Annual Agroecology Symposium, Florida International University, Miami, March 2011.

"Summer Agroecology Workshop for HighSchool Teachers." Conducted a five-day workshop, along with K. Jayachandran at FIU for high school teachers as part of the USDA Hispanic Serving Institutes Education Grant Program, July 2010.

"Sustainable Agriculture: Challenges and Opportunities," the Annual Agroecology Symposium at FIU--panel discussion, poster session and oral presentation sessions were held. More than 125 people, including FIU students and faculty, farmers and the area high school students attended the symposium, February, 2010.

"Sustainable Agriculture: Challenges and Opportunities," the Annual Agroecology Symposium organized at FIU--panel discussion, poster session and several oral presentation sessions were held. More than 150 people, including FIU students and faculty, farmers and the area high school students attended the symposium, on February 24, 2009.

"Summer Agroecology Workshop for HighSchool Teachers." Conducted a six-day workshop, along with K. Jayachandran at FIU, for high school teachers as part of the USDA Hispanic Serving Institutes Education Grant Program, July 2008.

"Agroecology and Sustainable Agriculture: Challenges and Opportunities," the Annual Agroecology Symposium organized at FIU--panel discussion, poster session and two student presentation sessions were held. More than 100 people, including FIU students and faculty, farmers and the area high school students attended the symposium, on January, 2008.

"Summer Agroecology Workshop for HighSchool Teachers." Conducted a six-day workshop, along with K. Jayachandran at FIU, for high school teachers as part of the USDA Hispanic Serving Institutes Education Grant Program, July 2006.

"Training Workshop on Gender and Economic Issues in Integrated Water Resource Management in the Mara River Basin." Conducted a two-day workshop, along with Becky Zarger and WWF field staff, for

volunteers and government officials in the Mara River Basin, as part of the capacity building under the USAID project on Integrated Water Resources Management (IWRM) Assistance to USAID Missions Worldwide, January 2006.

“Agroecology Workshop for FIU Students.” Conducted a day-long workshop at FIU in October 2006; More than 50 students who participated in various internship projects as part of the USDA Hispanic Serving Institutes Education Grant Program made oral and poster presentations.

“Application of Optimal Control Theory in Natural Resource Economics.” Conducted a day long workshop at University of Agricultural Sciences, Bangalore, India, October 2003.

“Public Participation and Engagement in Ecosystem Restoration Planning.” A day-long forum of invited community leaders to provide inputs for developing a handbook on public engagement under the National Parks Service’s CESI grant program, Florida International University, July 2003.

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## TEACHING ACTIVITIES

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**COURSES TAUGHT & PLANNED**

- Introduction to Environmental Economics – over 35 times
- Natural Resource Economics\* -- 5 times
- Environmental Sciences -- 2 times
- Intr’l Issues in Food Nutrition, Public Health and Economic Development\* -- 1 time
- Sustainable Resource Development\* -- 6 times
- Environmental Seminar (undergraduate) -- 1 time
- Environmental Seminar (graduate) -- 18 times
- Methods in Sustainable Resource Management\* -- 5 times (graduate)
- Environmental Resource Policy\* -- 15 times (graduate)
- Advanced Environmental Economics\* -- 5 times
- Sustainable Agriculture\* -- 4 times
- Asian Environmental Issues\* -- 4 times
- Global Environmental Issues -- 2 times
- Microeconomics

\* represents a new course.

**STUDENT ADVISING:** Advisor to more than 20 graduate students on their thesis/dissertation; for 15 as major advisor.

**As Major Advisor of Master Students**

Lourdes Gomez: The economics of alternative wetland mitigation plan for the Northwest Dade County. December 2002.

John Paniccia: Fasibility of an emission permit trade program for controlling industrial discharge to public sewer system. Completed the core course requirements. Graduated in August 2002.

Simon Teixeira: Economics of commercial aquaculture in Trinidad. Graduated in August 2002.

Lara Taylor: Assessment of Public Engagment in South Florida Restoration. Graduated in April 2002.

Carolina Rivera: Water pricing policy as a conservation tool for South Florida. Graduated December 2002.

Bryna Griffin: People in the Park: Resource Exclusion and Human-park Conflict within Kaeng Krachan National Park, Graduated Summer 2004.

Pablo Gottfried: Sustainability of Hybrid Energy System in Rural Mexico. Graduated in Spring 2006.

Kimesha Reid: On Factors Affecting the Level of Enforcement of Marine Parks Programs in Jamaica, graduated in 2006.

Kathy Stone: On socio-economics of mangrove restoration in India, graduated in 2007.

Emily Lofredo: Estimation of Irrigation Demand of Lawns and Golf Courses in Miami-Dade: A GIS Application, graduated in 2008.

Koji Hashimoto: Payment for environmental services in the Mara River Basin: Assessment of stakeholders' willingness to participate, graduated in December 2008.

Sandee Apang: Adoption of climate change and water quality science experiments into high school environmental science curriculum, graduated in April 2009.

George Atisa: Economics of best land management practices in the Mara River Basin. Graduating in August 2009.

Ric Soto: Urban food desert: Development of Community Garden in Miami Dade, Graduating in August 2010.

Karen Pannocchia: On the impact of globalization on marine ecosystem in the Caribbean, Graduating in August 2009.

Dionne de Costa: Alternative financing schemes for coral reef management in Tobago. Expected to graduate in 2010.

Max Tritt: Evaluation of Biscayne Bay National Park coral reef management plan. Expected to graduate in 2010.

Daria Stapien: An Assessment of Biofuel Policies in India. Expected to graduate in December 2009.

#### **As Major Advisor of Doctoral Students**

Kihore Dhavala, Ph.D. in Economics

Topic: On the economics of carbon trading; expected to complete in 2011.

#### **As Dissertation Committee Member**

Ryan Klotz, Ph.D. in Sociology and Anthropology. Topic: Diversity in Development: A Comparison of Export Agriculture Strategies in Highland Guatemala; advised him on an Independent Study, Agroecology fellowship proposal and his dissertation proposal.

Manny Moncholi, Ph.D. in Civil and Environmental Engineering: student is taking classes and developing research proposal.

Bryan Dewsbury, Ph.D. in Biological Sciences; Topic: Ecological and Economic Assessment of Seagrass Restoration. Completed written and oral qualifying exam; currently conducting field research.

Banu, Ph.D. in Civil and Environmental Engineering. Topic: Risk Base Post Closure Care for Florida Landfills. Defended her dissertation in Spring 2009.

Jeff Czajkowski, Ph.D. in Economics. Topic: Essays in Advanced Environmental Economic Valuations. Defended his dissertation in Summer 2007.

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## SERVICE ACTIVITIES

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**UNIVERSITY: Environmental Studies Department:**

Chair, Agroecology Certificate, 2005 to present. Application review, student advising, certification review and reporting.

Graduate Program Director, Summer 1999 to Summer 2008. Administered the graduate program that had more than 40 students; responsibilities included application review and admission decision, student advising, implementation of the university and department graduate program regulations, student progress review, reporting, and program development.

Developed the proposal for the Doctoral Program in Environmental Studies; currently under review at the Provost's Office.

Conduct high school and community college visits yearly for the recruitment of students into the Agroecology and Environmental Studies programs (degree, certificate, workshops and internships), 2005 to present.

Managed the Masters International Program in conjunction with the US Peace Corps, 1999-2008; application, review, students advising, reporting, program promotion, hosting campus visits of USPC representatives.

Library Committee: (as chair since August 1999).

Budget Committee (as chair for four years); oversaw spending activities under CUP (1996-97) and OCO funds (1997-98), including development of equipment lists, requisition, and receiving.

Curriculum Committee (as a member during 1997-98 and the chair during 1998-99): Class scheduling since Fall 1997. Actively participated in all the curricular meetings and discussions. Discussed and finalized several major new courses, and curricular changes during the term.

Human Resources Committee (member): 1996-97.

Search Committee (member): 1995-96.

**University Committees & Programs**

Member, FIU President's Committee on Sustainability, 2009 – present.

Member, FIU Building and Environment Committee, 2007-present.

Coordinated the development and presentation of the FIU's position on the formation of the new land grant university system for Hispanic Serving Agricultural Colleges and Universities under the 2008 Farm Bill.

Direct the campus organic garden, as part of the Agroecology Program; planning and development, and student advising on different activities.

Initiated the campus food waste composting project, with the help of Agroecology Scholarship recipients.

Held meetings with Aramark associates and the representatives of the South Dade Soil Conservation District to look at the possibility of starting food and yard waste composting project. Talks are still underway.

Faculty Advisor to Student Club: helped establish the student Garden Club, an FIU chapter of the Minority in Agricultural and Natural Resources and Related Sciences (MANRRS) Association. More than 50 students are recruited; attended several meetings and developmental activities of students; organized bi-weekly Brown Bag lunches and three guest speakers for the chapter. Supported a student to attend the national MANRRS conference.

Developed and implemented the FIU Agroecology Program—the first ever agricultural science education program at FIU (<http://agroecology.fiu.edu>).

Coordinator, the FIU Human Dimensions of the South Florida Environment Group. Helped FIU to become a recognized authority in human dimension research and education concerning south Florida. Several S FI agencies have approached this group for expert opinion and potential future collaboration.

Member, the Coordinating Committee for the Certificate in Environmental Studies.

Member, GIS Committee: Development of FIU GIS lab policy on lab use, publicity, course, user fees, etc.

Asian Studies Program: Developed a course for the Asian Studies Certificate Program; submitted research proposal to be included under the Program's various research grant proposals.

Served on the FIU Ecotourism Research Council and contributed an article on the Economics of Ecotourism to the Council's Checklist on Ecotourism Development and Planning.

#### **Program Coordination/Administration**

Served as acting department chair several times in the absence of a chairperson.

#### **PROFESSION: Association Memberships**

American Agricultural Economics Association  
Association of Environmental & Resource Economists  
International Society for Ecological Economics  
US Society for Ecological Economics (founding member)  
Indian Society of Ecological Economics (life member)

#### **Office Bearer**

Nominated for the Secretary position of the US Society for Ecological Economics (not elected)

**Referee/Reviewer**

Editorial Board Member:

*Journal of Sustainable Agriculture*

Journal articles:

*Journal of Environmental Economics and Management*

*Journal of Sustainable Agriculture*

*Environment and Resource Economics*

*Environment and Development Economics*

*Ecological Economics*

*Natural Resources Modeling*

*Journal of Agricultural and Resource Economics*

*Water Resources Research*

Granting agencies:

US Department of Agriculture.

UK Economic and Social Research Council.

Books:

M. E. Sharpe Publishers.

Served as a moderator at the American Agricultural Economics Association meetings.

**Subject Matter Expert/Foreign Consultant:**

Expert advisor for an marine environmental valuation project being held in Maldives under the support of SANDEES and through College of Fisheries, Mangalore, India, 2008 to present.

Invited to conduct a two-week special workshop at the National Center of Excellence in Natural Resource Economics, University of Agricultural Sciences, Bangalore, India, for training students and researchers in environmental economics and policy modeling, July 2001.

The above collaboration also has resulted in an economist from the above University visiting FIU in Spring 2001 for collaborative research.

Served as Environmental Economics Expert and Advisor on various fishery economics projects at the College of Fisheries, Mangalore, India under the World-Bank aided India-Environmental Capacity Building Technical Assistance Program, August 1999 - present.

**COMMUNITY Advisory Boards/Councils**

Member, Governing Council for the Center for Earth Juris Prudence, St. Thomas University and Barry University, Miami, Florida.

Member, Miami-Dade Public School District's Agribusiness and Natural Resources Education Advisory Committee, 2008 to present.

Member, Technical Review Committee for the South Dade Watershed Development Plan, 2003 – 2006.

External consultant, Environmental Economics Capacity Building Project in India, 1998-2002.

Review Team Member, Critical Ecosystem Science Initiative for Everglades Restoration, 2000-03.

Founding Member, US Ecological Economics Society, 1999.

Member, Biscayne Bay Partnership Initiative: Social Science Team, 2000-01.

Member, Critical Ecosystem Science Initiative, South FL Ecosystem Task Force, Water Planning Category Review Committee.

Co-Chair, Social and Human Issues Steering Committee, Greater Everglades Ecosystem Restoration Science Conference, Naples, Florida, August 2000 - present. Paper review and selection, participated in panel discussion to finalize social science agenda for future research; currently working on a book on the conference proceedings.

Member, NOAA Environmental Valuation Network for developing an *Environmental Valuation Guidebook for South Florida Marine Resources*, 1998.

Participated in a two-day workshop for developing the social science research agenda for the South Florida Ecosystem Restoration Task Force in February 1998.

Member, Social Science Steering Committee for organizing a conference on the Social Science Research Agenda for the South Florida Ecosystem Restoration, 1996-97.

Member, NOAA's Advisory Panel for developing a socioeconomic monitoring plan for the Florida Marine Sanctuary Programs. Attended the first planning meeting at Key Largo. Participated in a two-day workshop for developing socioeconomic monitoring plan for the marine sanctuary in January 1998.

Member, Energy Advisory Committee of the Governor's Commission for a Sustainable SF. Attended several meetings during the year and contributed to the final draft recommendations document on a sustainable energy program in South Florida.

Helped economists at the College of Fisheries, Mangalore, India develop a research project on the study of impacts of fishery regulations on local economies. The project has been funded by the Indian Council of Agricultural Research, New Delhi for three years.

Member, Expert Panel of the South Florida Water Management District for reviewing research proposals and programs, 1995-97.

Participated at the workshop on Curriculum Development in Quantitative Sciences for Life Science Students, Knoxville, TN, February 1992.

### **Media Program**

Addressed a press conference held by the Florida Environment on the occasion of the release of the report, "Global Climate Change Solutions," by the American Environment Research and Policy Center at Miami Museum of Science, June 2008.

Addressed a press conference on the environmental impacts of commercial aquaculture on coastal ecosystem in Karnataka, July 1997. I was featured in several major news papers in Karnataka state, India.

**Non-academic**

Trustee, Shiva Vishnu Temple of South Florida; administer children and adult education programs at the temple, 2005 to present.

Conducted monthly educational tours of the Hindu Temple for FIU, MDC, BCC and the area high school students.

On the Board of Directors, Nandi Kannada Koota of South Florida, a cultural organization; choreograph children's cultural and artistic programs; organize fun and social activities for member families.

*(Revised on November 3, 2011)*