

- curriculum vitae -

DOUGLAS D. SOUTHGATE, JR.

Contact Information

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Personal Data

Born: April 20, 1952 in Portland, Oregon
Citizenship: United States
Family Status: Married, two children

Education

B.S. (Honors), University of Oregon, June 1974. Major in Economics.

Ph.D., University of Wisconsin - Madison, Department of Agricultural Economics, December 1980. Major in Natural Resource Economics.

Current Employment

Since September 1980. Faculty member in Ohio State University's Department of Agricultural, Environmental, and Development Economics. Promoted to full professor in 1995.

Since September 2011. Associate Director of Ohio State University's Subsurface Energy Resource Center.

Previous Employment

October 2011 through June 2012. Visiting Researcher, Institute for Agricultural and Social Economics in the Tropics and Subtropics, University of Hohenheim, Stuttgart, Germany.

May 2007 through June 2011. Leader of Undergraduate Program, Agricultural, Environmental, and Development Economics.

August 1995 through March 1997, Director of University Center for International Studies.

September 1994 through June 1997, Director of University Latin American Studies Program.

August 1990 through July 1993, Joint Career Corps assignment with U.S. Agency for International Development in Quito, Ecuador.

January through July 1987, Fulbright research fellow in Quito, Ecuador.

February 1977 through August 1980, graduate research assistant in University of Wisconsin Department of Agricultural Economics. Supervisors: N. Bouwes (February 1977 through September 1979) and J. Strasma (June 1979 through August 1980).

September 1975 through December 1976, graduate teaching assistant in University of Wisconsin Department of Economics. Supervisor: L. Hansen (September through December 1976).

October 1973 through March 1974, student intern in the Research Office of the Oregon State Legislature. Supervisor: I. More.

Teaching Experience

Courses Taught at Ohio State University:

- Introduction to Economics (undergraduate);
- Introduction to Latin America (undergraduate);
- Feast and Famine: The Global Business of Food (undergraduate);
- Environmental and Natural Resource Economics (undergraduate);
- Development Economics (undergraduate);
- Research Methods (undergraduate);
- Food, Population, and the Environment (undergraduate);
- Latin American Economic Development (undergraduate);
- Linear Programming (graduate);
- Operations Research (graduate); and
- Environmental and Natural Resource Economics (graduate).

Short courses and training seminars on environmental and natural resource economics:

- two in Brazil, both taught in Portuguese;
- one in Dominican Republic, taught in Spanish;
- one in England (Wye College), taught in English;
- eight in Ecuador, all taught in Spanish;
- one at Harvard University, taught in English;
- three at University of Connecticut, both taught in Spanish; and
- one in Venezuela, taught in Spanish.

Other short courses:

- one short course on the world food economy in Argentina, taught in Spanish;
- one short course on linear programming in Ecuador, taught in Spanish;
- one short course on global food security in Germany (University of Hohenheim), taught in English; and
- two short course on the world food economy in Taiwan, taught in English.

Doctoral advisees: seven graduates.

M.S. advisees: nineteen graduates.

Publications and Presentations

Books

Southgate, D. and L. Roberts. *Globalized Fruit: Transnational Firms, Tropical Entrepreneurs and Governments, and Independent Banana Development*. Philadelphia: University of Pennsylvania Press, 2014.

Southgate, D., D. Graham, and L. Tweeten. *The World Food Economy*, Second Edition. New York: Wiley-Blackwell Publishing, 2011.

Southgate, D., D. Graham, and L. Tweeten. *The World Food Economy*. Malden: Blackwell Publishing, 2007.

Cramer, G., C. Jensen, and D. Southgate. *Agricultural Economics and Agribusiness*, Eighth Edition. New York: John Wiley and Sons, 2001.

Southgate, D. *Tropical Forest Conservation: An Economic Analysis of the Alternatives in Latin America*. New York: Oxford University Press, 1998.

Southgate, D. and M. Whitaker. *Economic Progress and the Environment: One Developing Country's Policy Crisis*. New York: Oxford University Press, 1994.

Monographs and Edited Volumes

Southgate, D. *Weathering Global Warming in Agriculture*. London: International Policy Network, 2010.

Southgate, D. *Feed the World: The Challenge of Agricultural Development*. London: International Policy Network, 2009

Albán, M., R. Moreno-Sánchez, D. Moscoso, D. Southgate, and S. Wunder (eds.). *Diseño de Pagos por Servicios Ambientales en Ecuador y Colombia: Memorias del Taller*. Bogor: Center for International Forestry Research, 2008.

Southgate, D. and D. Graham. *Growing Green: The Challenge of Sustainable Agricultural Development in Africa*. London: International Policy Network, 2006.

Tognetti, S., G. Mendoza, B. Aylward, D. Southgate, and L. Garcia. *A Knowledge and Assessment Guide to Support the Development of Payment Arrangements for Watershed Ecosystem Services*. Washington: World Bank, 2004.

Salazar, P., D. Southgate, C. Camacho, R. Stewart, P. Barreto, and M. Arguello. *Distorsiones en el Mercado Forestal en el Ecuador*. Quito: Midwest Universities Consortium for International Activities, 1998.

Southgate, D., K. Frederick, J. Strasma, A. White, L. Lach, J. Kellenberg, and Patricia Kelly. *Diagnóstico sobre Problemas Ambientales en el Ecuador*. Quito: Corporación Oikos, 1996.

Sanders, J., D. Southgate, and J. Lee. *The Economics of Soil Degradation: Technological Change and Policy Alternatives* (Technical Monograph Number 22). West Lafayette: Soil Management Support Services, 1995.

Southgate, D. and J. Disinger (eds.). *Sustainable Development of Natural Resources in the Third World*. Boulder: Westview Press, 1987.

Book Chapters

Southgate, D. and D. Graham. "Economic Progress, Agricultural Development, and Environmental Conservation: The Challenges in Sub-Saharan Africa," in T. Napier (ed.), *Human Dimensions of Soil and Water Conservation*. Hauppauge: Nova Science Publishers, 2010.

Southgate, D. and I. Coxhead. "Food Security and its Determinants in Asia and the Pacific," in *Toward Sustainable*

Agriculture and Food Security in Asia and the Pacific. Bangkok: U.N. Economic and Social Commission for Asia and the Pacific, 2009.

Southgate, D. and B. Sohngen. "Weathering Global Warming in Agriculture and Forestry: It Can Be Done with Free Markets," in *Civil Society Report on Climate Change*. London: International Policy Press, 2007.

D. Southgate. "Hacia una Cultura de Servicios Ambientales," in M. Jervis (ed.), *Experiencias de Manejo de Cuencas Hídricas en el Ecuador*. Quito: Fundación Antisana, 2006.

Rodríguez, F. and D. Southgate. "Local Resolution of Watershed Management Trade-Offs: The Case of Cotacachi, Ecuador," in R. Rhoades (ed.), *Development with Identity: Community, Culture, and Sustainability in the Andes*. Wallingford: CAB International, 2006.

Southgate, D. and E. Figueroa. "Reforming Water Policies in Latin America: Some Lessons from Chile and Ecuador," in K. Okonski (ed.), *The Water Revolution: Practical Solutions to Water Scarcity*. London: International Policy Press, 2006.

Southgate, D. , B. Bravo-Ureta, and M. Whitaker. "Economic Progress in the Countryside, Forests, and Public Policy: Some Lessons from Ecuador and Chile," in A. Romero and S. West (eds.), *Environmental Issues in Latin America and the Caribbean*. Dordrecht: Springer, 2005.

Hopkins, J. and D. Southgate. "Transitional and Persistent Poverty and Management of Fragile Lands: Evidence from El Salvador," in K. Wiebe (ed.), *Land Quality, Agricultural Productivity, and Food Security: Biophysical Processes and Economic Choices at Local, Regional, and Global Levels*. Cheltenham: Edward Elgar, 2002.

Southgate, D. and J. Ellegren. "Instituciones y Sostenibilidad: Temas Ambientales en la Amazonia Andina," in C. Aramburu and E. Bedoya-Garland (eds.), *Amazonia: Procesos Demográficos y Ambientales*. Lima: Consorcio de Investigación Económica y Social, 2002.

Southgate, D. "Forest Conservation and Development," in J. Morris (ed.), *Sustainable Development: Promoting Progress or Perpetuating Poverty?* London: Profile Books, 2002.

Southgate, D. "Economic Management Principles for Sustainable Development," in G. Barbiroli (ed.), *Theme 1.46, Principles of Sustainable Development – Encyclopedia of Life Supporting Systems*. Oxford: EOLSS Publishers, 2001.

Southgate, D. and D. Hertzmark. "The Future of Sustainable Development," in G. Barbiroli (ed.), *Theme 1.46, Principles of Sustainable Development – Encyclopedia of Life Supporting Systems*. Oxford: EOLSS Publishers, 2001.

Southgate, D. "Demographic Transition, Resource Management, and Institutional Change," in E. Bridges, I. Hannam, L. Oldeman, F. Penning de Vries, S. Scherr, and S. Sombatpanit (eds.), *Global Challenges and Responses in the Twenty-First Century*. New Delhi: Oxford University Press and IBH Publishing Company, 2001.

Lee, D. C. Barrett, P. Hazell, and D. Southgate. "Assessing Tradeoffs and Synergies among Agricultural Intensification, Economic Development, and Environmental Goals: Conclusions and Implications for Policy," in D. Lee and C. Barrett (eds.), *Trade-Offs or Synergies? Agricultural Intensification, Economic Development, and the Environment*. Wallingford: CAB International, 2001.

Lee, J., D. Southgate, and J. Sanders. "Methods of Economic Assessment of On-Site and Off-Site Costs of Soil Degradation," in R. Lal, W. Blum, and C. Valentine, and B. Stewart (eds.), *Methods of Assessment of Soil*

Degradation. Boca Raton: CRC Press, 1997.

Southgate, D., C. Camacho-Saá, and J. Strasma. "La Articulación de la Propiedad Privada en el Ecuador Rural," in M. Whitaker (ed.), *Evaluación de las Reformas a las Políticas Agrícolas en el Ecuador*. Quito: Instituto de Estrategias Agropecuarias, 1996.

Southgate, D., M. Coles-Ritchie, and P. Salazar-Canelos. "Can Tropical Forests Be Saved by Harvesting Non-Timber Products?" in W. Adamowicz, P. Boxall, M. Luckert, W. Phillips, and W. White (eds.), *Forestry, Economics, and the Environment*. Wallingford: CAB International, 1996.

Southgate, D. "Economic Progress and Habitat Conservation in Latin America," in T. Swanson (ed.), *The Economics and Ecology of Biodiversity Decline*. Cambridge: Cambridge University Press, 1995.

Southgate, D. "Tropical Deforestation and Agricultural Development in Latin America," in K. Brown and D. Pearce (eds.), *The Causes of Tropical Deforestation: The Economic and Statistical Analysis of Factors Giving Rise to the Loss of Tropical Forests*. London: University College London Press, 1994. Vancouver: University of British Columbia Press, 1994.

Southgate, D. "The Rationality of Land Degradation in Latin America: Some Lessons from the Ecuadorian Andes," in T. Napier, S. Camboni, and S. El-Swaify (eds.), *The Socioeconomics of Soil and Water Conservation: An International Perspective*. Ankeny: Soil and Water Conservation Society Press, 1994.

Southgate, D. "Policies Contributing to Agricultural Colonization of Latin America's Tropical Forests," in N. Sharma (ed.), *Managing the World's Tropical Forests: Looking for Balance between Conservation and Development*. Dubuque: Kendall/Hunt Publishing Company, 1992.

Southgate, D., D. Pearce, and R. Samanez. "Amazonian Deforestation: An Economic Perspective," in *Informe Final del Seminario sobre Políticas y Prácticas para Desarrollo Sostenible en los Países Miembros del Tratado de Cooperación Amazónica*. Quito: Secretaría Pro Tempore del Tratado de Cooperación Amazónica, 1992.

Forster, D. and D. Southgate. "Economic Perspectives on Erosion and Nonpoint Source Pollution," in R. Lal (ed.), *Soil Tillage and Agricultural Sustainability*. International Soil Tillage Research Organization, 1991.

Southgate, D. "Influencia de las Políticas en el Uso y la Gestión de los Recursos Naturales Renovables de América Latina," in J. Vial (ed.), *Desarrollo y Medio Ambiente: Hacia un Enfoque Integrador*. Santiago: Corporación de Investigaciones Económicas para Latinoamérica, 1991.

Southgate, D. "Development of Ecuador's Renewable Natural Resources," in M. Whitaker and D. Colyer (eds.), *Agriculture and Economic Survival: The Role of Agriculture in Ecuador's Economic Development*. Boulder: Westview Press, 1990.

Southgate, D. "Three Current Land Use Issues in the United States," in D. Pearce and F. Juhasz (eds.), *Renewable Natural Resources: Economic Incentives for Improved Management*. Paris: Organization for Economic Cooperation and Development, 1990.

Southgate, D. and F. Hitzhusen. "Economic Analysis of Renewable Resource Conservation in the Third World," in D. Southgate and J. Disinger (eds.), *Sustainable Development of Natural Resources in the Third World*. Boulder: Westview Press, 1987.

Southgate, D. and A. Veloz. "The Economics of Watershed Management: Two Case Studies from Latin America," in I. Sentis (ed.), *Soil Conservation and Productivity*. Maracay: Universidad Central de Venezuela, 1987.

Hitzhusen, F., R. Macgregor, D. Southgate, and A. Veloz. "Hydropower Impacts of Soil Erosion: Private and Social Cost-Benefit Perspectives," in F. Hitzhusen and R. Macgregor (eds.), *A Multi-Disciplinary Approach to Renewable Energy in Developing Countries*. Columbus: Publishing Horizons, Inc., 1986.

Forster, D., T. Logan, G. Pierzynski, and D. Southgate. "Institutional Constraints on Residuals Use," in Brown *et al.* (eds.), *Utilization, Treatment, and Disposal of Waste on Land*. Madison: Soil Science Society of America, 1986.

Forster, D. and D. Southgate. "Institutional Constraints," in Page *et al.* (eds.), *Proceedings of 1983 Workshop on the Utilization of Municipal Wastewater and Sludge on Land*. Riverside: University of California Press, 1983.

Southgate, D., H. Hoitink, T. Logan, W. Faber, and E. Smith. "Developing a Compost Marketing Strategy for Akron, Ohio," in E. Stentiford (ed.), *Proceedings of the International Conference on Composting of Solid Wastes and Slurries*. Leeds: University of Leeds, Department of Civil Engineering, 1983.

Journal Articles

Wasserstrom, R. and D. Southgate, "Deforestation, Agrarian Reform, and Oil Development in Ecuador, 1964-1994," *Natural Resources*, 4:1 (2013) 31-44 (<http://www.scirp.org/journal/nr/>).

Southgate, D., "Food Sovereignty: The Idea's Origins and Dubious Merits," *African Technology Development Forum Journal*, 8:1/2 (2011) 18-22.

Southgate, D., "National Interests, Multinational Actors, and Petroleum Development in the Ecuadorian Amazon," *Whitehead Journal of Diplomacy and International Relations*, 12:1 (2011) 137-151.

Southgate, D., T. Haab, J. Lundine, and F. Rodríguez, "Payments for Environmental Services and Rural Livelihood Strategies in Ecuador and Guatemala," *Environment and Development Economics*, 15:1 (2010) 21-37.

Rodríguez, F., D. Southgate, and T. Haab, "Is Better Drinking Water Valued in the Latin American Countryside? Some Evidence from Cotacachi, Ecuador," *Water International*, 34:3 (2009) 325-334.

Southgate, D., F. Rodríguez, and T. Haab, "Subsistence Farming, Rural Livelihoods, and Payments for Environmental Services in Ecuador," *Harvard International Review*, 31:2 (2009) 54-57.

Southgate, D., "Population Growth and Food Production," *Electronic Journal of Sustainable Development*, 1:3 (2009) 41-48.

Southgate, D. and S. Wunder, "Paying for Watershed Services in Latin America: A Review of Current Initiatives," *Journal of Sustainable Forestry*, 28:3 (2009) 497-524.

Arar, J. and D. Southgate, "Evaluating CO₂ Reduction Strategies in the United States," *Ecological Modelling*, 220 (2009) 582-588.

Southgate, D., "¿Deben Escasear Más los Alimentos?" *Perspectivas*, 6:18 (2008) 69-72.

Gitter, S., R. Gitter, and D. Southgate, "The Impact of Return Migration to Mexico," *Estudios Económicos*, 23:1 (2008) 3-23.

González-Vega, C., J. Rodríguez-Meza, D. Southgate, and J. Maldonado. "Poverty, Structural Transformation, and

Land Use in El Salvador," *American Journal of Agricultural Economics*, 86:5 (2004) 1367-1374.

Rodríguez-Meza, J., D. Southgate, and C. González-Vega. "Rural Poverty, Household Responses to Shocks, and Agricultural Land Use: Panel Results for El Salvador," *Environment and Development Economics*, 9:2 (2004) 225-239.

Bashaasha, B., D. Kraybill, and D. Southgate. "Land Use Impacts of Agricultural Intensification and Fuelwood Taxation in Uganda," *Land Economics*, 77:2 (2001) 241-249.

Coxhead, I. and D. Southgate. "Economy-Wide Sources of Agricultural Expansion in Developing Countries," *International Journal of Agricultural Resources, Governance, and Ecology*, 1:1 (2000) 68-76.

Southgate, D., P. Salazar-Canelos, C. Camacho-Saá, and R. Stewart. "Markets, Institutions, and Forestry: The Consequences of Timber Trade Liberalization in Ecuador," *World Development*, 28:11 (2000) 2005-2013.

Jurado, J. and D. Southgate. "Dealing with Air Pollution in Latin America: The Case of Quito, Ecuador," *Environment and Development Economics*, 4:3 (1999) 375-388.

Southgate, D., M. Whitaker, and C. Ortiz. "Modernizing Water Institutions: The Challenge in Ecuador," *International Review of Comparative Public Policy*, 11 (1999) 83-97.

Southgate, D. "Alternatives to the Regulatory Approach to Biodiverse Habitat Conservation," *Environment and Development Economics*, 2:1 (1997) 106-110.

Stern, J., D. Southgate, and J. Strasma. "Improving Garbage Collection in Latin America's Urban Slums: Some Lessons from Machala, Ecuador," *Resources, Conservation, and Recycling*, 20 (1997) 219-224.

Wood, G., D. Southgate, and E. Jones. "Ohio MSW Landfill Closure Cost Estimate Variability: Multiple Regression Model and Analysis," *MSW Management*, 6:3 (1996) 50-55.

Southgate, D. and J. Ellegren. "Development of Tropical Timber Resources by Local Communities: A Case Study from the Peruvian Amazon," *Commonwealth Forestry Review*, 74:2 (1995) 142-146.

Southgate, D. and H. Clark. "Can Conservation Projects Save Biodiversity in South America?" *Ambio*, 22:2-3 (1993) 163-166.

Brazeel, R. and D. Southgate. "Development of Ethno-Biologically Diverse Tropical Forests," *Land Economics*, 68:4 (1992) 454-461.

Southgate, D. and M. Basterrechea. "Population Growth, Public Policy, and Resource Degradation: The Case of Guatemala," *Ambio*, 21:7 (1992) 460-464.

Southgate, D. and M. Whitaker. "Promoting Resource Degradation in Latin America: Tropical Deforestation, Soil Erosion, and Coastal Ecosystem Disturbance in Ecuador," *Economic Development and Cultural Change*, 40:4 (1992) 787-807.

Brown, L., R. Sierra, D. Southgate, and L. Lobao. "Frontier Settlement in the Ecuadorian Amazon: Ground Level Reality versus General Frameworks," *Environment and Planning*, 24 (1992) 939-961.

Southgate, D. "Petroleum Development in Tropical Rainforests: The Economics of Pollution Control in Eastern Ecuador," *Ecodecisión*, 5 (1992) 78-81.

- Southgate, D., R. Sierra, and L. Brown. "A Statistical Analysis of the Causes of Deforestation in Eastern Ecuador," *World Development*, 19:9 (1991) 1145-1151.
- Southgate, D., J. Sanders, and S. Ehui. "Resource Degradation in Africa and Latin America: Population Pressure, Policies, and Property Arrangements," *American Journal of Agricultural Economics*, 71:5 (1990) 1259-1263.
- Southgate, D. "The Causes of Land Degradation along 'Spontaneously' Expanding Agricultural Frontiers in the Third World," *Land Economics*, 66:1 (1990) 93-101.
- Southgate, D. and R. Macke. "The Downstream Benefits of Soil Conservation in Third World Hydroelectric Watersheds," *Land Economics*, 65:1 (1989) 38-48.
- Forster, D., C. Bardos and D. Southgate. "Soil Erosion and Water Treatment Costs," *Journal of Soil and Water Conservation*, 42:5 (1987) 349-352.
- Southgate, D., R. Taylor, and S. Uchida. "How Will the Greenhouse Industry Utilize Waste Heat?" *Agribusiness: An International Journal*, 2:1 (1986) 65-75.
- Southgate, D., S. Ott, N. Rask, and F. Walker. "The Agricultural Impacts of Increased Alcohol Industry Demand for Corn: The Case of Ohio," *Energy in Agriculture*, 5 (1986) 211-223.
- Southgate, D., S. Uchida, and E. Gadomski. "The Relationship between the Price of Waste Heat and Greenhouse Industry Production Systems," *HortScience*, 20:6 (1985) 1121-1122.
- Veloz, A., D. Southgate, F. Hitzhusen, and R. Macgregor. "The Economics of Erosion Control in a Subtropical Watershed: A Dominican Case," *Land Economics*, 61:2 (1985) 145-155.
- Southgate, D. and C. Runge. "Toward an Economic Model of Deforestation and Social Change in Amazonia," *The Science of the Total Environment*, 55 (1986) 121-126, and *Ricerche Economiche*, 39:4 (1985) 561-567.
- Southgate, D., F. Hitzhusen, and R. Macgregor. "Dealing With Third World Soil Erosion Problems," *American Journal of Agricultural Economics*, 65:5 (1984) 879-884.
- Southgate, D. "Potential Markets for Akron Sludge-Derived Compost," *Biocycle-Journal of Waste Recycling*, 25:6 (1984) 42-43.
- Forster, D. and D. Southgate. "Social Institutions Influencing Land Application of Wastewater and Sludge," *Journal of the Water Pollution Control Federation*, 56:5 (1984) 399-404.
- Hitzhusen, F., R. Macgregor, and D. Southgate. "Private and Social Cost-Benefit Perspectives and a Case Application on Reservoir Sedimentation Management," *Water International*, 9:4 (1984) 181-184.
- Southgate, D. and D. Forster. "Institutional Constraints on Land Application," *BioCycle-Journal of Waste Recycling*, 24:6 (1983) 37-38.
- Southgate, D., N. Rask, T. Ryan, and S. Ott. "Projecting Food-Fuel Conflicts Resulting from Biomass Energy Development in Ohio," *Energy in Agriculture*, 2 (1983) 307-317.
- Southgate, D., B. Sharp, S. Lovejoy, and N. Bouwes. "A Case Study of Incentives for Adoption of Less-Polluting Manure Handling Techniques," *North Central Journal of Agricultural Economics*, 2 (1980) 125-130.

Grants and Research Funding

“Potential Economic Impacts of Shale Resource Development in Ohio” (co-investigator), Ohio Shale Coalition, August through December 2011 (\$22,669, Ohio State’s portion).

“Appraising Economic Development and Land-Use Policies to Build Healthy Rural and Urban Communities” (co-investigator), Ohio Agricultural Research and Development Center, May 2008 through April 2011, \$48,000.

“Designing Incentives for Ecosystem Services” (co-investigator), OSU Climate-Water-Carbon Initiative, July 2007 through June 2011, \$397,000.

“Making Nature Count: Enhancing Payments for Environmental Service Initiatives in Ecuador and Colombia” (co-investigator), MacArthur Foundation, January 2007 through December 2009, \$250,000.

“Analysis Required for Payments for Watershed Environmental Services” (principal investigator), USAID Sustainable Agriculture and Natural Resource Management Cooperative Research Support Program (SANREM CRSP), January 2005 through November 2006, \$97,000.

“Rural Poverty, Watershed Conservation, and Public Policy in Latin America” (principal investigator), USAID Sustainable Agriculture and Natural Resource Management Cooperative Research Support Program (SANREM CRSP), April through September 2005, \$7,100.

“Watershed Development in Ecuador: Economic Analysis” (principal investigator), OSU Environmental Policy Institute, July through October 2004, \$2,300.

“Development of Course, ‘Feast or Famine’” (principal investigator), OSU College of Food, Agricultural, and Environmental Sciences, June 2004 through June 2005, \$26,600.

“Watershed Development in Ecuador: Economic Analysis and Policy Dialogue” (principal investigator), USAID SANREM-CRSP, July 2003 through May 2004, \$59,000.

“The Development of Small- and Medium-Sized Municipalities in Ohio” (principal investigator), C. William Swank Program in Rural-Urban Policy, January through September 2001, \$8,000.

“Broadening Access and Strengthening Input Market Systems Cooperative Research Support Program” (co-investigator), U.S. Agency for International Development, October 1996 through December 2000, \$600,210.

“Rural and Agricultural Incomes with a Sustainable Environment Indefinite Quantity Contract” (co-investigator), U.S. Agency for International Development, December 1998 through December 2003, indefinite amount.

“Analysis of Ecuadorian Timber Markets” (principal investigator), U.S. Agency for International Development, September 1997 through October 1998, \$75,000.

“Title VI Center Grant and Foreign Language and Area Studies Fellowships for Ohio State University Center for International Studies” (principal investigator), U.S. Department of Education, August 1994 through August 1997, \$705,000.

“Title VI Foreign Language and Area Studies Fellowships for Ohio State University Latin American Studies Program” (principal investigator), U.S. Department of Education, August 1994 through August 1997, \$130,000.

"Interdisciplinary Research Seminar Series on the Future of the Welfare State" (principal investigator), Ohio State University Office of Research, September 1996 through December 1997, \$5,000.

"Interdisciplinary Research Seminar Series on Latin American Development" (principal investigator), Ohio State University Office of Research, April 1996 through September 1996, \$5,000.

"Field Research Grants for Ohio State University Latin American Studies Program" (principal investigator), Tinker Foundation, January 1994 through December 1996.

"Defining the Emerging Market in Ohio for Wood Products Industry Residues Used To Generate Electricity" (principal investigator), Ohio Biomass Energy Program, Public Utilities Commission of Ohio, Columbus, October 1994 through July 1995. \$20,000.

"Cooperative Agreement with Instituto de Estrategias Agropecuarias for Environmental Policy Analysis and Dialogue" (principal investigator), U.S. Agency for International Development, Quito, August 1992 through July 1993, \$286,000.

Numerous contracts awarded to the Instituto de Estrategias Agropecuarias for research and policy analysis from three U.S. Agency for International Development projects [Agriculture and Rural Development Technical Services (LACTECH), Development Strategies for Fragile Lands (DEFIL), and Environmental Policy Analysis and Training (EPAT)], the Inter-American Development Bank, the World Bank, the U.N. Food and Agriculture Organization, and the World Wildlife Fund. Approximately \$75,000 from January 1991 to June 1993.

"Joint Career Corps Assignment: Natural Resource Economics in Ecuador" (principal investigator), U.S. Agency for International Development, August 1990 through July 1993, \$400,000.

"Management of the Big Darby Creek Watershed: Benefit-Cost Analysis" (principal investigator), The Nature Conservancy Ohio Field Office and Ohio State University Center for Mapping, April 1989 through June 1990, \$20,000.

"Settlement of the Amazon Basin: An Ecuadorian Case Study" (principal investigator), Ohio State University Graduate School, May 1988 through May 1989, \$4,000.

"Tropical Forest Management: A Graduate Fellowship Program" (co-principal investigator), Jesse Smith Noyes Foundation, September 1986 through August 1989, \$35,000.

"Ohio State University Tropical Renewable Resources Program Title XII Strengthening Grant" (co-investigator), U.S. Agency for International Development, September 1985 through August 1987, \$40,000.

"Economic Feasibility of Candidate Industries for the Piketon, Ohio Agribusiness Park" (co-principal investigator), Pike County Development and Energy Management Corporation, July 1984 through October 1984, \$60,000.

"Alternative Manure Systems for Large Swine Facilities" (co-investigator), Ohio Environmental Protection Agency, October 1983 through February 1984, \$45,000.

"Economic Analysis of Trade Offs between Soil Conservation and Crop Production Goals" (principal investigator), Ohio State University College of Agriculture, September 1983 through August 1984, \$7,500.

"Ohio State University Department of Agricultural Economics Title XII Strengthening Grant" (co-investigator), U.S. Agency for International Development, September 1983 through August 1984, \$17,000.

"Technical Assistance for Natural Resource Management in the Dominican Republic" (co-investigator and occasional Ohio State University campus coordinator), U.S. Agency for International Development, November 1982 through July 1986, \$215,000.

"An Integrated Regional Analysis of Potential Biomass Energy Production in Ohio" (co-investigator), Ohio Department of Energy, September 1981 through February 1983, \$60,000.

"Akron Sludge Compost Market Development" (principal investigator), U.S. Environmental Protection Agency and City of Akron, Ohio, November 1981 through August 1983, \$160,000.

"Economic Value of Ohio's Lake Erie Fisheries" (co-principal investigator), Ohio Sea Grant College Program, September 1980 through August 1982, \$50,000.

Overseas Assignments

Joint Career Corps assignment with U.S. Agency for International Development in Quito, Ecuador, August 1990 through July 1993.

January through July 1987, Fulbright research fellow in Quito, Ecuador, January through July 1987.

Short-term consultancies addressing agricultural development, the conservation of biodiverse habitats, forestry, soil and water conservation, urban and industrial environmental issues, watershed management, and other topics in:

- Argentina for Universidad Belgrano in 2005.
- Bolivia for World Bank in 1996.
- Brazil for Ford Foundation, Inter-American Development Bank, and University of Sao Paulo in 1987, 1988, 1989, 1990, and 1995.
- Chile for Ford Foundation in 1990.
- Colombia for Center for International Forestry Research, Ford Foundation, and U.N. Food and Agriculture Organization in 1991, 2007, and 2008.
- Costa Rica for Inter-American Development Bank in 1995.
- Dominican Republic for Inter-American Development Bank and U.S. Agency for International Development in 1982, 1983, 1984, 1985, and 1986.
- Ecuador for Center for International Forestry Research, Inter-American Development Bank, King and Spaulding LLP, Midwest Universities' Consortium for International Activities, Shook-Hardy-and-Bacon LLP, U.S. Agency for International Development, and World Bank in 1985, 1987, 1988, 1989, 1993, 1994, 1995, 1996, 1997, 1998, 2001, 2007, 2008, 2009, and 2010.
- El Salvador for Inter-American Development Bank in 2000.
- Guatemala for Inter-American Development Bank and U.S. Agency for International Development in 1990, 2000, 2001, 2002, and 2003.
- Honduras for U.S. Agency for International Development, Central American Bank for Economic Integration, and Inter-American Development Bank in 1981, 2000, and 2003.
- Malaysia for Global Environmental Facility of the U.N. Development Program, U.N. Environmental Program, and World Bank in 1997.
- Mexico for International Policy Network in 2006.
- Peru for Ford Foundation, International Finance Corporation, U.N. Food and Agriculture Organization, and U.S. Agency for International Development in 1991, 1998, 2003, and 2009.
- St. Kitts-Nevis for U.S. Agency for International Development in 1983 and 1985.
- South Africa for International Policy Network in 2006.

- Taiwan for National Chung Hsing University in 2009.
- Tanzania for U.S. Agency for International Development in 1998 and 1999.
- Thailand for U.N. Economic and Social Commission for Asia and the Pacific in 2009.
- Venezuela for World Bank in 1994.

Honors, Awards, and Affiliations

International Advisory Board, Panamerican Agricultural School, Zamorano, Honduras, 2010-present
 Adjunct Professor, Department of Applied Economics, National Chung Hsing University, Taichung, Taiwan, 2008-2010
 Outstanding Service to Students, Ohio State University College of Food, Agricultural, and Environmental Sciences, 2009
 Price Advising Award, Ohio State University College of Food, Agricultural, and Environmental Sciences, 2006
 Pomerene Teaching Award, Ohio State University College of Food, Agricultural, and Environmental Sciences, 2003
 International Award of Merit, Ohio State University chapter of Gamma Sigma Delta, 1999
 Gamma Sigma Delta (agricultural honorary), 1994
 Honorary Fellow, Instituto de Estrategias Agropecuarias, 1993
 Phi Beta Delta (international scholars' honorary), 1990
 Tropical Ecosystems Directorate, U.S. Man and the Biosphere Program, 1989-1990
 Founding Associate Fellow, London Environmental Economics Centre (University College London and International Institute for Environment and Development), 1988
 Fulbright Research Fellowship, Ecuador, 1987
 National Security Award, Ohio State University Mershon Center, 1985
 Phi Beta Kappa and Honors at Graduation, University of Oregon, 1974
 Member, American Economic Association and Association of Environmental and Resource Economists

Foreign Language Proficiency

Spanish (reading, writing, speaking)
 Portuguese (reading, speaking)

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