

## **Gregory S. Amacher**

### **Curriculum Vita, February 2015**

#### *Office Address:*

Department of Forestry  
College of Natural Resources  
Virginia Tech, Blacksburg, VA 24061  
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### **Education**

- Ph.D. University of Michigan (natural resource economics) 1993
- M.S. University of Michigan (natural resources) 1991
- M.A. University of Michigan (statistics) 1990
- M.A. University of Michigan (economics) 1989
- B.S. Pennsylvania State University (forest science) 1984, with highest distinction

### **Research Interests**

Natural resource and environmental economics, development economics, public finance and policy design

### **Academic Positions**

Julian N. Cheatham Professor, Forest and Natural Resource Economics. College of Natural Resources, Department of Forestry, Virginia Polytechnic Institute and State University, USA (2007-)

Professor, Natural Resource Economics. College of Natural Resources, Department of Forestry, Virginia Polytechnic Institute and State University, USA (2006-2007);

Associate Professor. College of Natural Resources, Department of Forestry, Virginia Polytechnic Institute and State University, USA (1999-2005);

Assistant Professor. College of Natural Resources, Department of Forestry, Virginia Polytechnic Institute and State University, USA (1994–1999).

Visiting Associate Professor. Department of Economics, Virginia Commonwealth University, USA (2000-2001).

Agricultural Economist. Economic Research Service, U.S. Department of Agriculture (August 1990-January 1994).

Research Assistant. Research Seminar in Quantitative Economics (RSQE), Department of Economics, University of Michigan, USA (1987-89).

### **Selected Editorships and Honorary Appointments**

Senior Editor (Forestry and Economics), *Natural Resource Modeling*, 2004 – 2007  
(Associate Editor, 2008-2011)  
Editor, *Forest Science*, 2001- 2004  
Editorial Council, *Journal of Environmental Economics and Management*, 1999-2012  
Associate Editor, *Forest Science*, 1998-2001  
Associate Editor, *Journal of Forest Economics*, 1999-  
Visiting Professor, Department of Economics, University of Helsinki, Finland  
Visiting Professor, Helsinki Center for Economics Research, Finland  
Visiting Professor, Department of Economics, Gothenburg University, Sweden  
Adjunct Honorary Senior Professor, Chinese Academy of Sciences, Peking University  
and Chinese Center for Agricultural Policy, 2003-  
Affiliate Research Scientist, Institute of Environmental Research for Amazonia (IPAM),  
Brazil.  
Invited Expert, World Health Organization, Geneva, Switzerland  
Courtesy Adjunct Appointment, Virginia Tech Department of Agricultural and Applied  
Economics, 2007, Department of Economics 1994-  
Faculty Associate, Lincoln Land Policy Institute, 1995-1998  
Invited member, Research Review Committee member for USDA Forest Service,  
Southern Station, Forest Economics and Protection Unit, November 200

### **Teaching**

#### Awards

Virginia Tech College of Natural Resources Excellence in Teaching Award, 2003  
Virginia Tech College of Natural Resources Outstanding Faculty Award, 2003  
Virginia Tech Panhellenic Teaching Excellence Award, 2003 (University-wide)

#### Courses Taught

##### *Undergraduate*

Natural resources economics, Virginia Tech (2009-)  
Environmental economics, Virginia Tech (1994-)  
Forest resource economics, Virginia Tech (2001-2008)  
Microeconomics principles, Virginia Commonwealth University (VCU) (2000)  
Forestry spring camp (Forest management exercise), Virginia Tech (1994-2008)

Principles of microeconomics, University of Michigan (1988-89)  
 Microeconomics principles, Oakland Community College, Royal Oak, MI (1987-89)  
 Silviculture, School of Natural Resources, University of Michigan (1986)

### *Graduate*

Advanced natural resource economics, Virginia Tech (1994-)  
 Dynamic optimization and natural resources, Virginia Tech (1999-2009)  
 Policy instruments and natural resources (3 lectures), Göteborg University (2001)  
 Advanced topics in forest economics, Virginia Tech (1998-2001)

### Student Teaching Evaluations

Average Scores for *Overall Instructor Rating* (out of a possible 4.0 points):

Forest resource economics:	3.98 (average enrollment = 35)
Environmental and natural resource economics:	3.95 (average enrollment = 125)
Advanced natural resource economics:	4.00 (average enrollment = 6)
Microeconomic Principles (VCU):	3.85 (enrollment = 185)

### **Refereed Journal Articles**

Kuusela, Olli-Pekka, and Gregory S. Amacher. 2015. "Changing political regimes and tropical deforestation." *Environmental and Resource Economics* (2015): 1-19.

Amacher, Gregory S., Markku Ollikainen, and Mikko Puhakka. 2014. "A long-run perspective on renewable resource use and amenity benefits: the case of forestry." *Journal of Environmental Economics and Policy* ahead-of-print (2014): 1-13.

Amacher, Gregory S., Markku Ollikainen, and Jussi Uusivuori. 2014. "Forests and ecosystem services: Outlines for new policy options." *Forest Policy and Economics* 47 (2014): 1-3.

Hallmann, Fanfan W., and Gregory S. Amacher. 2014. "Uncertain emerging biomass markets, ecosystem services, and optimal land use." *Forest Policy and Economics* 47 (2014): 46-56.

Busby, G., Amacher, G. S., & Haight, R. G. 2013. The social costs of homeowner decisions in fire-prone communities: Information, insurance, and amenities. *Ecological Economics*, 92, 104-113.

Amacher, G., M. Ollikainen, and E. Koskela. 2013. Corruption and Forest Concessions. *Journal of Environmental Economics and Management* 63: 92-104

Pfaff, A., G. Amacher, and E. Sills. 2013. Realistic REDD: Improving the forest impacts of domestic policies in different settings. *Review of Environmental Economics and Policy* 7(1):114-135.

Sullivan, J., and G. Amacher. 2012. "Optimal hardwood tree planting and forest reclamation policy on reclaimed surface mine lands in the Appalachian coal region." *Resources Policy*.

Amacher, G. 2012. "Samuelson's economics of forestry in an evolving society, still a useful and relevant article thirty six years later," *Journal of Natural Resource Policy Research* 4:197-201.

Hallman, F., and G. Amacher. 2012. "Forest bioenergy adoption for a risk averse landowner under uncertain bioenergy market emergence." *Natural Resource Modeling* 25: 482–510

Amacher, G., R. Brazee, and P. Deegen. 2011. "Faustmann continues to yield," *Journal of Forest Economics* 17(3):231-234.

Amacher, G. S., Merry, F., & Bowman, M. S. 2011. Reply to Walker and Arima. *Ecological Economics*, 70(9), 1568-1568.

Hesseln, H., G. Amacher, and A. Deskins. 2010. The effects of geospatial technologies on wildfire suppression costs, *International Journal of Wildland Fire* 19:468-477.

Mann, M., R. Kaufmann, F. Merry, M. Del Carmen, J. Kallay, G. Amacher, D. Nepstad, and D. Morton, 2010. The economics of cropland conversion in Amazonia: the importance of rent. *Ecological Economics* 69:1503-1509.

Sullivan, J. and G. Amacher. 2010. Private and Social Costs of Surface Mine Reforestation Performance Criteria. *Environmental Management* 45(2):311-319.

Vokoun, M., G. Amacher, J. Sullivan, and D. Wear, 2010, "Examining incentives for adjacent nonindustrial landowners to cooperate," *Forest Policy and Economics* 12:104-110.

Amacher, G., E. Koskela, and M. Ollikainen. 2009. Deforestation and land use under insecure property rights. *Environment and Development Economics* 14:281-303.

Crowley, C., A. Malik, G. Amacher, and R. Haight. 2009. Adjacency externalities and forest fire prevention. *Land Economics* 85: 162-185.

Bowman, M., G. Amacher, and F. Merry. 2009. Smallholder incentives for fire prevention in the Brazilian Amazon. *Ecological Economics* 67:117-130.

- Amacher, G., F. Merry, and M. Bowman, 2009. Smallholder timber supply on the Transamazon frontier. *Ecological Economics* 66: 1787-1796.
- Crowley, C., A. Malik, G. Amacher, and R. Haight. 2009. Adjacency externalities and forest fire prevention. *Land Economics* 85:162-185.
- Merry, F., B. Soares, G. Amacher, D. Nepstad, and H Rodrigues. 2009. Balancing Protection and production on the Amazon frontier. *Environmental Management* 44: 394-407.
- Sullivan, J., and G. Amacher. 2009. Social costs of mineland reclamation. *Land Economics* 85:712-726
- Amacher, G., E. Koskela, and M. Ollikainen. 2009. Deforestation and land use under Insecure property rights. *Environment and Development Economics* 14:281-303.
- Goodnow, R., J. Sullivan, and G. Amacher. 2009. Ice Damage Risk and Forest Stand Management. *Journal of Forest Economics* 14:268-288.
- Merry, F., and G. Amacher. 2008. Land values in frontier settlements of the Brazilian Amazon. *World Development* 36: 2390-2401.
- Amacher, G., E. Koskela, and M. Ollikainen. 2007. Royalty reform and illegal reporting of harvest volumes under alternative penalty schemes. *Environmental and Resource Economics* 8(2): 189-211
- Sullivan, J., J. Aggett, G. Amacher and J. Burger. 2006. Financial Viability of Reforesting Reclaimed Surface Mined Lands, the Burden of Site Conversion Costs, and Carbon Payments as Reforestation Incentives. *Resources Policy*. 30(2006):247-258
- Amacher, G. 2006. Corruption: A challenge for economists interested in forest policy design (non-refereed editorial) *Journal of Forest Economics* 12, no. 2, 2006: 85-89.
- Bauch, S., G. Amacher, and F. Merry. 2006. Costs of harvesting, transportation and milling in the Brazilian Amazon: estimation and policy implications. *Forest Policy and Economics* 9(8): 903-915
- Amacher, G., A. Malik, and R. Haight. 2006. Reducing the social costs of forest fires. *Land Economics* 82(3):367-383.
- Merry, F., G. Amacher, M. Santos, E. Lima, D. Macqueen, and D. Nepstad. 2006. Collective action without collective ownership: community associations and logging on the Amazon frontier. *International Forestry Review* 8(2):211-223.

Merry, F., G. Amacher, D. Nepstad, E. Lima, P. Lefebvre, and S. Bauch. 2006. Industrial development on logging frontiers in the Brazilian Amazon. *International Journal of Sustainable Development* 9:277-296.

Lima, E., F. Merry, D. Nepstad, G. Amacher, C. Azevedo-Ramos, F. Resque Jr., and P. Lefebvre. 2006. Forest management in the Brazilian Amazon. *Environment* 48(1):26-39.

Vokoun, M., G. Amacher, and D. Wear. 2006. Harvesting intensity choices of nonindustrial forest landowners. *Journal of Forest Economics* 11(4): 223-244.

Amacher, G., E. Koskela, and M. Ollikainen. 2005. Quality competition and social welfare in markets with partial coverage: New Results. *Bulletin of Economic Research* 57(4):391-405.

Kohlin, G., and G. Amacher. 2005. Welfare implications of social forestry projects: the case of Orissa India. *American Journal of Agricultural Economics* 87(4):855-869.

Amacher, G., A. Malik, and R. Haight. 2005. Don't get burned: the importance of fire prevention in forest management. *Land Economics* 81(2):284-302.

Amacher, G., A. Malik, and R. Haight. 2005. Forest landowner decisions and the value of information under fire risk. *Canadian Journal of Forest Research* 35: 2603-2615.

Amacher, G., A. Malik, and R. Haight. 2005. Nonindustrial private landowners, fires, and the wildland-urban interface. *Forest Policy and Economics* 7( 5): 796-805

Merry, F., and G. Amacher. 2005. Forest concessions and policy choices for the Brazilian Amazon. *Journal of Sustainable Forestry* 20(2):15-44.

J. Sullivan, G. Amacher, and S. Chapman. 2005. Forest banking and forest landowners: forgoing management rights for guaranteed financial returns. *Journal of Forest Policy and Economics* 7(3):381-392.

Amacher, G., E. Koskela, and M. Ollikainen. 2004. Forest rotations and stand interdependency: ownership structure and timing of decisions. *Natural Resource Modeling* 17(1):1-45.

Ersado, L., G. Amacher, and J. Alwang. 2004. Productivity and land enhancing technologies in Northern Ethiopia: health, public investments, and sequential adoption. *American Journal of Agricultural Economics* 86(2):332-345.

Amacher, G., L. Ersado, D. Grebner, and W. Hyde. 2004. Natural resources, microdams, and health in Tigray, Ethiopia. *Journal of Development Studies* 40:122-145.

Amacher, G., L. Ersado, W. Hyde, and A. Osorio. 2004. Tree planting in Tigray, Ethiopia: human health and water microdams. *Journal of Agroforestry Systems* 60(3):211-225.

Xu, J., R. Tao, and G. Amacher. 2004. Empirical analysis of China's state Forests. *Journal of Forest Policy and Economics* 6:379-390.

Amacher, G., Koskela, and M. Ollikainen. 2004. Environmental quality competition and eco-labeling. *Journal of Environmental Economics and Management* 47:284-306.

*Reprinted in M. Teisl (ed.). 2007. Labeling strategies in environmental policy. The International Library of Environmental Economics and Policy, Ashgate Press, Aldershot, England.*

Conway, C., G. Amacher, J. Sullivan, and D. Wear. 2003. Decisions nonindustrial forest landowners make. *Journal of Forest Economics* 9:181-203.

Amacher, G., C. Conway, and J. Sullivan. 2003. Econometric analysis of forest landowners: is there anything left to do? *Journal of Forest Economics* 9:137-164.

Merry, F. D., G. S. Amacher, E. Lima, D. C. Nepstad. 2003. A risky forest policy in the Amazon? *Science* 299:1843.

Merry, F., G. Amacher, B. Pokorny, E. Lima, E. Scholz, and D. Nepstad. 2002. Some doubts about forest concessions in the Brazilian Amazon. 2003. *ITTO Tropical Forestry Update*.

Xu, J., W. Hyde, and G. Amacher. 2002. China's paper industry: growth and environmental policy during economic reform. *Journal of Economic Development* 28(1):49-79.

Amacher, G., E. Koskela, M. Ollikainen, and C. Conway. 2002. Bequest intentions and forest landowners: theory and policy implications. *American Journal of Agricultural Economics* 84:1103-1114

Amacher, G., and A. Malik. 2002. Pollution taxes with endogenous technology choice. *Southern Economic Journal* 68(4):891-917.

Amacher, G., E. Koskela, M. Ollikainen. 2002. Optimal forest taxation in an overlapping generations model with timber bequests. *Journal of Environmental Economics and Management* 44(2):346-369.

Amacher, G. 2002. Forest taxation and many governments. *Forest Science* 48(1):146-157.

Amacher, G., R. Brazee, and M. Witvliet. 2001. Royalty systems, government revenues, and forest condition: an application from Malaysia. *Land Economics* 77(2):300-313.

Jenkins, D., J. Sullivan, G. Amacher, and N.S. Nicholas. 2001. Valuing Forest Quality and Recreational Experiences in the Southern Appalachian Spruce Fir Forest. *Journal of Forest Economics*.

Fina, M., G. Amacher, and J. Sullivan. 2001. Uncertainty, debt, and forest harvesting: Faustmann revisited. *Forest Science* 47(2):188-196.

Brazee, R. and G. Amacher. 2000. Duality and Faustmann: implications for policy. *Forest Science* 46(1):132-138.

Grebner, D., and G. Amacher. 2000. The impacts of deregulation and privatization on technical efficiency in New Zealand's forest sector. *Forest Science* 46(1):40-51.

Amacher, G. and D. Hellerstien. 1999. The error structure of time series cross section models with sporadic event timing and serial correlation. *Journal of Applied Econometrics* 14:233-252.

Amacher, G. 1999. Government preferences and public forest harvesting: A second best approach. *American Journal of Agricultural Economics* 81(1):14-28.

Brazee, R., G. Amacher, and C. Conway. 1999. Optimal harvesting with autocorrelated stumpage prices. *Journal of Forest Economics* 5(2):15-26.

Amacher, G., W. Hyde, and K. Kanel. 1999. Nepali fuelwood production and consumption: regional and household distinctions, substitution, and successful intervention. *Journal of Development Studies* 35(4):138-163.

Amacher, G., R. Brazee, E. Koskela, and M. Ollikainen. 1999. Bequests, taxation, and short and long run timber supplies: an overlapping generations problem. *Environmental and Resource Economics* 13:269-288.

Sullivan, J., and G. Amacher. 1999. The design of forest subsidies in the Mississippi Delta: Linking landowner and regional effects. *Forest Science* 45(3):381-393.

Amacher, G., and A. Malik. 1998. Instrument choice when regulators and firms bargain. *Journal of Environmental Economics and Management* 35(3):225-241.

Amacher, G., J. Sullivan, L. Shabman, D. Grebner, and L. Zepp. 1998. Reforestation of flooded farmland: policy implications from the Mississippi Delta. *Journal of Forestry* 96(5):10-17.



Amacher, G., W. Cruz, D. Grebner, and W. Hyde. 1998. Environmental motivation for migration: population pressure, poverty, and deforestation in the Philippines. *Land Economics* 74(1):92-101.

Amacher, G. 1997. The design of forest taxation: a synthesis with future directions. *Silva Fennica* 31(1):101-119.

Amacher, G. and R. Brazee. 1997. Designing forest taxes with budget targets and varying government preferences. *Journal of Environmental Economics and Management* 32(3):323-340.

Amacher, G., M. Rios, L. Constantino, and R. Brazee. 1997. The design of second best forest incentives in small open economies: Chile's forestry incentives program. *Forest Science* 44(1):165-173.

Amacher, G. and R. Brazee. 1997. The second best efficiency of regressive forest taxes and the promotion of forest quality. *Canadian Journal of Forest Research* 27(9):1503-1508.

Amacher, G., and P. Feather. 1997. Testing producer perceptions of best management practices for water quality improvement. *Applied Economics* 29(2):153-159.

Amacher, G., W. Hyde, and K. Kenal. 1996. Forest fuelwood policy when households collect and others purchase fuelwood. *Journal of Forest Economics* 2(3):273-288.

Amacher, G., W. Hyde, and K. Kanel. 1996. Household fuelwood demand and supply in Nepal's terai and mid-hills: choice between cash outlays and labor opportunity. *World Development* 24(11):1725-1736.

*Reprinted in Parks, P., and I. Hardie (eds.), 2003, The Economics of Land Use, The International Library of Environmental Economics and Policy, Ashgate Press, Aldershot, England.*

Hyde, W., G. Amacher, and W. Magrath. 1996. Deforestation, scarce forest resources, and forest land use: theory, empirical evidence, and policy implications. *World Bank Research Observer* 11(2):223-248.

Amacher, G., and W. Hyde. 1996. Migration and the environment: The case of Philippine uplands. *Journal of Philippine Development* 42(2).

Amacher, G. and A. Malik. 1996. Bargaining in environmental regulation and the ideal regulator. *Journal of Environmental Economics and Management* 30(2):233-253.

Hyde, W. and G. Amacher. 1995. Applications of environmental accounting and the new household economics: new technical economic issues with a common theme in forestry. *Forest Ecology and Management* 83(3):137-148.

Feather, P. and G. Amacher. 1994. Role of information in the adoption of best management practices for water quality improvement. *Agricultural Economics* 11:159-170.

Kim, C.S., J. Hostetler, and G. Amacher. 1994. Testing Hotelling's principle with a delayed response dynamic model. *The Journal of Economics*, 18(1):91-95.

Kim, C.S., J. Hostetler, and G. Amacher. 1993. The regulation of groundwater quality with delayed responses. *Water Resources Research* 29(5):1369-1377.

Amacher, G., W. Hyde, and B. Joshee. 1993. The adoption of consumption technologies under uncertainty: A case of improved stoves in Nepal. *Journal of Economic Development* 17(2):93-105.

Amacher, G., W. Hyde, and B. Joshee. 1993. Joint production and consumption in traditional households: Fuelwood and crop residues in two districts of Nepal. *Journal of Development Studies* 30(1):206-225.

Amacher, G., W. Hyde, and M. Rafik. 1993. Local adoption of new forestry technologies: An example from Pakistan's Northwest Frontier Province. *World Development* 21(3):445-453.

Kim C.S., Hostetler J, Amacher G.S., 1992. Groundwater contamination with delayed-responses. *American Journal of Agricultural Economics* 75:(5):1311-1311 (Meeting Abstract).

Amacher, G., D. Brazee, and T. Thompson. 1991. The effects of forest productivity taxes on optimal rotation age and initial stand investment. *Forest Science* 37(4):1099-1118.

### **Selected Books, Monographs, Book Chapters**

Malik, A. S., Amacher, G. S., Russ, J., Esikuri, E. E., & Ashida Tao, K. (2014). Framework for Conducting Benefit-Cost Analyses of Investments in Hydro-Meteorological Systems. The World Bank Monograph

Amacher, G. The Forest harvesting problem: have we reached the limit of our understanding, in Layton, D., and R. Halvorsen (Eds), Handbook of natural resource economics, Edward Elgar Press (In Press).

Amacher, G., and E. Brazee. 2014. Risk and uncertainty in forest resource decision making, in S. Kant and J. Alavalapati (eds), Handbook of forest economics, Routledge Press.

Pfaff, A., G. Amacher, and E. Sills. 2013. Deforestation & forest degradation: causes and

policy impacts,” in R. Deacon and J. Shogren (eds), Shogren, J. *Encyclopedia of Energy, Natural Resource, and Environmental Economics*. Newnes.

Pfaff, A., Sills, E., Amacher, G., Coren, M., Lawlor, K., and Streck, C. 2010. Policy Impacts on Deforestation: Lessons Learned from Past Experiences to Inform New Initiatives, Duke University Nicholas Institute.

Amacher, G., M. Ollikainen, and Erkki Koskela. Economics of forest resources. The MIT Press, Cambridge MA (April 2009)

Hyde, W., and G. Amacher. 2001 (eds). Economics of forestry development in Asia: an empirical introduction. University of Michigan Press, Ann Arbor, MI, 492 pp.

Amacher, G., M. Aust, L. Shabman, D. Grebner, J. Groninger, L. Shabman, J. Sullivan, L. Zepp. 1997. Landowners' financial returns to reforestation of marginal farmlands in the Mississippi alluvial plain: estimates, interpretations, and policy implications. Virginia Water Center Monograph #185.

Amacher, G., and F. Merry. 2006. Logging contracts and smallholder land clearing behavior in the Brazilian Amazon. In S. Mitra (ed), Environmental economics and sustainability, Routledge Press, UK.

Amacher, G., C. Conway, and J. Sullivan. 2004. Empirical nonindustrial landowner research: a synthesis with new directions. Rauscher, H. M. and K. Johnsen (eds.). Southern Forest Science: past, present, and future. Government Printing Office, Washington DC.

Amacher, G., and R. Brazee. 1997. "Fiscal competition and coordination in natural resource markets," in Proost, S., and J. Braden(eds), Economic aspects of environmental policy making in a federal state. Edward Elgar Press, N.Y.

Cruz, W., H. Fransisco, and G. Amacher. 1997. "Poverty, migration, and deforestation in the Philippines," in W. Cruz, M. Monasingh, and J. Warford (eds), The Greening of Environmental Policy Reform. World Bank Environment Division.

Jenkins, D., J. Sullivan, D.W. Reaves, N.S. Nicholas and G.S. Amacher. 1998. "Sensitivity of Protection Value to Forest Quality: Linking Economic Value and Climate Change in the Southern Appalachian Spruce-Fir Forest," In: Mickler, R. and S. Fox (eds), Productivity and Sustainability of Southern Forest Ecosystems in a Changing Environment, Springer-Verlag, New York. pp. 837-854.

Amacher, G. and W. Hyde. 1993. "Tests of hypotheses regarding fuelwood and residue consumption and production, labor use, and adoption of consumption technologies in Nepal," in W. White, V. Adamovicz, and W. Phillips (eds), Forestry and the Environment: Economic Perspectives. London: Common Wealth Abstract Bureau International.

Amacher, G. and W. Hyde. 1992. "The economics of household production and supply of bamboo," in S.L. Zhu (ed), Bamboo and Its Use. Beijing: International Tropical Timber Organization and Chinese Academy of Forestry.

### **Selected Other Publications and Technical Reports**

Amacher, G. Amacher, G. 2008. African Forest Concession Design under Government Constraints and Corruption, Department of International Development, London UK.

Amacher, G., and A. Malik. 2005. "Social Costs, Forest Fires, and Policy Design: A New Approach ." Technical report submitted to the USDA Forest Service, Northern Station.

Conway, C., and G. Amacher. 2005. "Willingness of Michigan landowners to harvest aspen: a stated preference approach." Technical report submitted to the USDA Forest Service, Northern Station.

Amacher, G., M. Vokoun, and J. Sullivan. 2004. Policy Instruments and Forest Fragmentation: A Spatial Approach, Phase 1. Report for USDA Forest Service, 60 pp.

Amacher, G., and F. Merry. 2004. "Analyzing smallholder forest families, migrants, and forest industry in the Brazilian Amazon." Technical report submitted to Woods Hole Research Center.

Amacher, G, E. Koskela, and M. Ollikainen. 2004. Deforestation, production intensity, and land use under insecure property rights. Center for Economic Studies working paper series, University of Munich, Germany. CESifo #1128, February 2004.

Amacher, G, E. Koskela, and M. Ollikainen. 2004. Socially optimal royalty design and illegal logging under alternative penalty schemes. Center for Economic Studies working paper series, University of Munich, Germany. CESifo #1131, February 2004.

Burger, J., F. Galbraith, J. Aggett, G. Amacher, J. Sullivan, and C. Zipper. 2004. Restoring sustainable forests on Appalachian mined lands for wood products, renewable energy, carbon sequestration, and other ecosystem services. Report for U.S. Department of Energy, National Energy Laboratory.

Amacher, G, E. Koskela, and M. Ollikainen. 2002 Forest Rotations and Stand Interdependency: Ownership Structure and Timing of Decisions, Center for Economic Studies, Department of Economics, University of Munich, Germany. CESifo #673

Amacher, G, E. Koskela, and M. Ollikainen, Environmental Quality Competition and ecolabeling, The Research Institute of the Finnish Economy, Discussion Paper #848, March 2003.

Amacher, G, L. Ersado, and W. Hyde. 2003. Economic and policy effects of microdams and watershed afforestation on agriculture and the prevalence of disease in Tigray Ethiopia. Technical report submitted to World Health Organization, Geneva, Switzerland.

Amacher, G., A. Malik, and R. Haight. 2003. Burning questions: uncertainty and the value of information in forest fire management. Report for US Forest Service North Central Research Station.

Amacher, G, E. Koskela, and M. Ollikainen, Quality Competition and Social Welfare in Markets with Partial Coverage: New Results, The Research Institute of the Finnish Economy, Discussion Paper #851, April 2003

Amacher, G, L. Ersado, and W. Hyde. 2003. "Economic and Policy Effects of Microdams and Watershed Afforestation on Agriculture and the Prevalence of Disease in Tigray Ethiopia." Report for World Health Organization, Geneva, Switzerland.

Amacher, G., C. Conway, J. Sullivan, M. Vokoun, and D. Grebner. 2003. "Comparisons of reservation prices for harvesting and land use change in Mississippi and Virginia." Report for U.S. Forest Service Southern Research Station, Southern Forest Resource Assessment Consortium.

Amacher, G., C. Conway, and J Sullivan. 2002. "Reservation prices and land use." Final Report submitted to USDA Economic Research Service.

Amacher, G., and C. Conway. 2001. "Reservation prices and landowner decisions regarding timber sale and land use: evidence from Virginia and Mississippi." Final Report Submitted to USDA Forest Service Southern Research Station, Southern Forest Resource Assessment Consortium (SOFAC)

Conway, C., S. Chapman, G. Amacher, and J. Sullivan. 2000. "Management Behavior of Central and Southwest Virginia's Nonindustrial Private Forest Landowners: A Comparison." Report for U.S. Forest Service, Southern Forest Resource Assessment Consortium (SOFAC).

Amacher, G., M. Christine Conway, J. Sullivan, J. Scrivani, and C.Hensyl. 1998. "Effects of shifting population and landowner preferences on nonindustrial landowner behavior: with an empirical example from Virginia." Final Report submitted to Southern Forest Resource Assessment Consortium (SOFAC).

Amacher, G., M. Aust, L. Shabman, D. Grebner, J. Groninger, L. Shabman, J. Sullivan, L. Zepp. 1997. "Reforestation in the Mississippi Delta: Analysis and Policies." Report for Business Council for Sustainable Development in the Gulf of Mexico.

Amacher, G., D. Brazee, J. Bulkley, and R. Moll. 1989. "The valuation of coastal wetlands: An interdisciplinary approach." Report for Water Resources Institute, East Lansing, Michigan. Abstract published in *Water Resources Bulletin*.

Amacher, G., D. Brazee, J. Bulkley, and R. Moll. 1989. "An empirical analysis of economic and noneconomic valuation: Examples from Great Lakes coastal wetlands." Report for Water Resources Institute, East Lansing Michigan.

Amacher, G. 1986. "A financial analysis of Michigan department of natural resources tree planting procedures." Report for Michigan Department of Natural Resources Forest Management Division, East Lansing, Michigan.

### **Selected Extramural Grants and Sponsorship**

*Total funding:* Over \$8,000,000 as PI or Co-PI since 1994

*Sponsors:* National Science Foundation, Lincoln Land Policy Institute, NASA, World Health Organization, Woods Hole Research Center, Organization, USDA Forest Service Southern and Northern Stations, Fund for Rural America, Southern Forest Assessment Consortium, USAID, US Department of Energy, USDA Economic Research Service, The World Bank (Environment Division and Latin American Studies Division), National Center for Fire Landscape Analysis, IPAM Brazil, USDA, Gordon and Betty Moore Foundation, Forest Service Office of International Programs, Virginia Department of Forestry

#### *Examples:*

"Land and resource use on the Amazon floodplain under evolving management systems and environmental change: Fish, forests, cattle, and settlements", Hess, McGrath, Amacher, Merry, Coe, Castello, and Kellendorfer, NASA, \$1,409,183,

"A Conservation Agriculture Production System Program for the Central Plateau of Haiti," USAID SANREM CRSP Phase IV Long-term Research Awards. \$1,650,000 McKenna, Alley, Amacher, Badio, Thomason, Rainey.

"Preparation of a policy statement on deforestation and REDD," Murray, Pfaff, Amacher, Sills, Streck, Packard Foundation, \$100,000

"The role of natural resources in mitigating political, environmental and health shocks to extremely poor households in Southeastern Africa "Merry, Amacher, Epstein, Laporte, National Science Foundation, \$800,000

"Economic analysis: a companion proposal to: The impact of land use change and incidence of malaria and schistosomiasis in Tigray, Ethiopia," Amacher, Hyde, World Health Organization, \$175,000

"Bioenergy: Optimum incentives and sustainability of non-industrial private forests in the U.S. South," Alvalapati, Amacher, Mehmood, Smith, US Department of Energy, \$656,525

“Feedbacks among forestry, agriculture, and fire in Amazonia,” Nepstad, Amacher, Curran, Kaufmann, National Science Foundation, \$1,300,000

“Dynamic models of fire policy design and fuel reduction with multiple landowners,” Amacher, Malik, US Forest Service, \$80,000

“Development of policy decision models under fire uncertainty,” Amacher, Malik, US Forest Service \$95,000

“Developing a framework to assess the value of remote sensing technology and GIS applications for wildfire management,” Hesseln, Amacher, National Center for Landscape Fire Analysis \$185,000

“Restoring sustainable forests on Appalachian mined lands for wood products, renewable energy, carbon, and other ecosystem services,” Burger, Fox, Amacher, Zipper, Sullivan, Galbraith, US Department of Energy, 494,000

“Reservation prices, expectations, and nonindustrial landowner behavior: evidence from two regions of the US,” Amacher, Sullivan, US Forest Service, \$60,000

“Benefits and costs of agricultural versus conversion of bottomland hardwoods in the Mississippi Alluvial Plane,” Amacher, Sullivan, Shabman, Business Council for Sustainable Development in the Gulf, \$50,000

### **Selected Invited seminars and Keynote Addresses**

Over 40 invited presentations at universities and institutions in U.S. and Europe since 1994

#### *Examples:*

Keynote, The forest harvesting problem: have we reached the limit of our understanding? Scandinavian Society of Forest Economics, May 21-23, 2014, Uppsala Sweden

Keynote, Samuelson’s economics of forests thirty six years later, Fourth International Faustmann Symposium: Forest Economics under Multiple Challenges, September 9-12, 2012, Tunturihotelli, Saariselkä Finland

Keynote Seminar, Forest taxation in Africa Workshop, Department for International Development, London, UK, June 2008.

Keynote Seminar, The future of forest economics research, Southern Forest Economics Workshop, San Antonio, TX, March 4, 2007.

Invited Seminar, Property rights and deforestation, Department of Environmental Studies, Dartmouth College, Hanover NH, November 10, 2006.

Invited Seminar, Disease, microdams, and natural resources in Tigray Ethiopia, Department of Forestry and Environmental Resources, North Carolina State University, March 21, 2005.

Invited Seminar, Logging contracts and smallholder labor decisions in the Brazilian Amazon, Woods Hole Research Center, Falmouth MA, June 24, 2004.

Keynote, Eco-labeling and natural resources: new results, Symposium on Natural Resource and Environmental Economics, Department of Economics, University of Helsinki, Finland, May 2001.

Keynote, New results regarding forest landowner behavior: urbanization and absenteeism, Southern Forest Resource Assessment Consortium Annual Meeting, Raleigh, North Carolina, USA February 2001.

Invited Seminar, Reservation prices and land use change: new results, U.S. Economic Research Service, August 2002.

Invited Seminar, Policy instrument choice and endogenous firm behavior, Department of Economics, Invited seminar, Department of Economics, Virginia Commonwealth University, January 2001.

Invited Seminar, Fiscal Federalism and Natural Resource Markets, Department of Economics, Gothenberg University, Sweden, December 2001.

Invited Lecture, Policy instruments and environmental regulation, Department of Economics, Gothenberg University, Developing Country Graduate Program, Sweden, June 1999.

Invited Seminar, with Aust, L. Shabman, D. Grebner, J. Groninger, L. Shabman, J. Sullivan, and L. Zepp. Landowners' financial returns to reforestation of marginal farmlands in the Mississippi alluvial plain: estimates, interpretations, and policy implications, Connecting points of view in the Delta, Jackson MS, 1996.

Invited Seminar, Policy instruments: new results, Department of Economics, University of Michigan, April 1998.

Invited Honorary, Workshop on reforestation of marginal farmland as a nonstructural flood control solution for backwater flooding in the Yazoo River basin. Held at Mississippi State University Department of Forestry, January 22, 1997.



Invited Seminar, A comparison of Scandinavian and North American approaches to forest taxation analysis, Finnish Forestry Research Institute, Helsinki, Finland, June 1995.

### **Selected University Service (Virginia Tech)**

Chair, Promotion and Tenure Committee (2011-2012, 2013-2014)

Virginia Tech university faculty senate member (2010-2014)

Chair, College Faculty Affairs Committee (2006-2007)

Member, Website Revision Committee (2006)

Chair, Graduate Affairs Committee, Department of Forestry (2005-2006)

Member, remote sensing search committee, 2006

Member, Search Committee, forest policy position, 2001, 2007

Chair, Department of Forestry Graduate Affairs Committee, 1998-2000, member 2003-

Member, Search Committee, Department of Agricultural Economics, natural resource economist,

Director, Department of Forestry Spring Camp, 1995-1997

Reviewer for University ASPIRES program proposals, 1998-99

Member, peer review teaching committee, Department of Forestry, 1998, 2006

Department University Library Representative, 1998-2000

Chair, Department of Forestry Facilities Committee. 1996-97 (member 1995)

Member, Department of Forestry Ad hoc Spring Camp Revision Committee, 1996

Member, University Graduate Commission of Research and Policies, 1999-2000

Member, University Undergraduate Honors Council. 1996-2000

Member, University Service Learning Committee, 1995-1999

Member, Departments of Economics and Agricultural and Applied Economics Ph.D. curriculum revision task force, 1995

Reviewer, Graduate Student Assembly "Graduate Research Development Project" Applications, 1994

Member, Environmental Resource Management Curriculum Committee, 1994-

Faculty advisor to the undergraduate Environmental Resources undergraduate Club, 1994- 2000