

AERC Congressional Briefing and Symposium
October 19, 2011
Dr. Rebecca Moore

Abstract

Ecosystem services are those things nature provides that are of direct benefit to humans. Forests provide essential ecosystem services including timber provision, recreational opportunities, water filtration, carbon storage, wildlife habitat, scenic beauty. Some of these services primarily benefit the owners or users of the land, such as private individuals, corporations, or, in the case of public land, the general public. But other ecosystem services benefit everyone, including those that don't own, or directly interact with, forest land. Efficient land use decisions and forest policy must take into account the total economic value of each land use option, which includes both these direct use and indirect use components. Complicating matters, many of these "other" ecosystem services (water quality, air quality, wildlife benefits, etc.) are non-market services; there is no economic market in which to observe the value people place on them. While this makes it more difficult to estimate their value, doing so is required for informed decision-making. Not considering these values will lead to less land in forest cover, reduced ecosystem services, and reduced benefits to everyone. This presentation will describe recent research estimating the economic value of the water, air, wildlife, soil, aesthetic and cultural-related ecosystem services forests provide. Using a combination of ecological and social data, we identify key factors that affect the ecosystem service value of forestland, and then estimate these values using multiple valuation methods. We describe the results of a case study which estimated Georgia's 22 million acres of privately own forests provide over \$37 billion/year in non-timber, non-recreation related benefits. The average per-acre values range from \$264 to \$13,442/year depending on the forest characteristics. Higher per acre values generally come from forested wetlands or riparian forests in urban areas while lower per-acre values come from non-wetland forests in rural areas.

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Bio

Dr. Rebecca Moore is an Assistant Professor of Natural Resource Economics in the Warnell School of Forestry and Natural Resources at the University of Georgia in Athens, GA. She has been at UGA since 2006. She received a Ph.D. in Applied Economics from the University of Wisconsin in 2006, and a B.A. in Geology from the University of Colorado in 2000. Dr. Moore's research focuses on how environmental resources are valued by individuals, and how economic models of decision making can be combined with models of ecological systems to improve our understanding of how humans and the environment interact. Her recent research projects have investigated values and decision making related to Georgia's private forests, the National Wildlife Refuge System, sustainable tourism in Costa Rica, endangered species protection, watershed and reservoir management, organic farming, and other important natural resource topics. Her research has been recognized for both its contribution to the research community and its practical importance. In addition to research, Dr. Moore teaches undergraduate and graduate classes to economics and ecology students.