

Competitive Research Grant Program

Mississippi rural lands valuation study

Investigators: Jeanne C. Jones, W. Daryl Jones, Wildlife and Fisheries; Ian A. Munn, Stephen C. Grado, Forestry; Terry R. Hanson, Agricultural Economics

Project Goal:

Ascertain recent sales values of rural lands in Mississippi influenced by outdoor recreation.

Project Objectives:

Expand a preliminary study completed in 2006 to evaluate sales values of private rural lands that were purchased during 2002 – 2005 for recreational uses in the Mississippi Delta region into a statewide inventory.

Synopsis of research activities:

A pilot study completed in 2006 evaluated sales values of private rural lands that were purchased during 2002–2005 for recreational uses in the Mississippi Delta region. This project will expand that study into a statewide inventory. In the original study, data were collected from records of land sales developed and maintained by the Mississippi Chapter of the American Society of Farm Managers and Rural Appraisers (ASFMRA). Cooperating appraisers of ASFMRA completed a survey of 100 property parcels that encompassed 33,070 acres in Mississippi. Appraisers were queried for information pertaining to recent property sales, proportion of land value attributed to outdoor recreation, pursued wildlife species, cover and habitat types, and land use. The majority (70%) of

land parcels were located near or in the Mississippi River Delta region. Dominant cover types of properties were agricultural crops (43%) and forest cover (52%) with the remainder (5%) being other cover types, such as wildlife plantings and wetlands. Recreational uses that were important to purchasers of properties (n=100) included hunting (100%), off road vehicles access (60%), horse back riding (45%), wildlife watching (44%), ecotourism (43%), and fishing (16%). Featured species associated with recreation on these properties (N=100) were white-tailed deer (*Odocoileus virginianus*; 93%), rabbits (*Sylvilagus* spp.; 65%), wild turkey (*Meleagris gallopavo*; 56%), waterfowl (48%), Squirrel (*Sciurus* spp.; 38%), dove (*Zenaida macroura*; 15%), quail (*Colinus virginianus*; 12%), and other (< 10%). Total sales value of sampled properties with consideration of recreational opportunities was \$41,675,171.00 or \$1,260.21/acre. Appraisers reported that the sales value of the same properties without recreational values would have been \$30,709,679.00 or \$928.63/acre. Recreational value contributed an average increase of \$331.58/acre or an increase of 36% in property value. Property characteristics that influenced sales price were acres of pine-hardwood forests, bottomland hardwood forests, agricultural row crops, wildlife supplemental food plots, and rabbit. Thus, the pilot study found that wildlife and fish recreation contributes to sales values

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of Mississippi properties. Conservation and management of wildlife and fish resources can produce quantifiable increases in land values and sales proceeds, and that consideration of value added by outdoor recreation is part of a cost-effective approach to sustainable economic development and resource conservation in Mississippi. For comparison purposes and land use management implications, this study should be expanded to inventory land sales for recreational uses in the entire state. Thus, this study will be expanded from a delta-based analysis to a statewide inventory of rural lands sales to evaluate more thoroughly the impact of wildlife recreation on rural land sales and values in Mississippi. The ASFMRA and the Federal Land Bank System have agreed to collaborate in this effort to provide comprehensive land sales information. Information gained from this study will be provided to landowners and managers, commercial and agricultural lenders, and resource agencies through landowner workshops, educational materials, and web-based training offered by the Natural Resource Enterprises program. Furthermore, sustainable development related to the maintenance of high value rural lands in Mississippi for conservation of life quality, natural resources, and recreational resources for Mississippi's citizens will be developed.

Significant findings/results to date:

A survey questionnaire has been completed to be used in collecting sales information from participating rural appraisers and financial lenders of the American Society of Farm Managers and Rural Appraisers, Federal Land Bank, First South Farm Credit, and Mossy Oak properties Inc. The survey has been sent to appraiser and lenders for their review and comments. Following receipt of their modifications, the questionnaire will be finalized for use in the study and data collection will begin. A doctoral candidate will be collecting and analyzing data. This study will expand the pilot study findings by sampling rural land sales on a statewide basis. Survey information by property parcel will be collected from rural land appraisers, including locations (County, Section, Township, and Range), prices of properties with and without wildlife-related outdoor recreation, land cover, fishing activities, perceived wildlife species, road access to/on properties, and amenities located on properties. Proximity to public lands, nearest major city and nearest interstate will be determined by using ArcView or other appropriate analyses. Trophy white-tailed deer and soil resource region will be determined by using Deer Management Assistant Program (DMAP) data. A multiple linear regression model will be used to determine contributions that potentially influence property prices due to outdoor recreation. This

study will compare findings by region: Mississippi Delta, North Mississippi, and South Mississippi in addition to examining statewide land value means influenced by recreation. Property values from outdoor recreation are thought to be important to property owners for enhancement of wildlife and property; land appraisers; and community leaders, natural resource agencies, and regulatory agencies for environmental and natural resource protection.

Applications or broader impacts of significant findings, including economic impacts or projected impacts:

Rural land values have been cyclical over the past 40 years with recent upwards trends in sales values due to the high demand for quality properties for outdoor recreation (hunting, fishing, relaxation). This study is the first of its kind to determine rural property values due to recreation in the state. Study findings will be communicated with ASFMRA, financial institutions, land management organizations, and resource agencies and will assist owners, land managers, and resource professionals in making more informed land management decisions, sales and financial transactions, and incorporation of wildlife habitat management and forestry practices on properties to enhance rural land values.

Project success relative to original objectives:

The project is proceeding as planned.

List post docs and graduate students with title of thesis or dissertation, if completed, and estimated graduation date:

Brashier, J. Expected to graduate in 2010. Rural property values in Mississippi and contributions from outdoor recreation. Dissertation, Department of Wildlife and Fisheries, Mississippi State University.

Fund Leveraging	
Mississippi Department of Environmental Quality	\$155,000
US Environmental Protection Agency Wetlands Division	\$131,000