

PREFACE

SERA-IEG 30 is the designation for the Southern Natural Resource Economics workgroup that is committed to integrating research and extension services in the natural resource economics area. The 2004 SERA-IEG 30 meeting was held in conjunction with the Center for Natural Resource Economics Policy meeting on May 28-29, 2004 at Lod Cook Hotel and Conference Center, Louisiana State University, Baton Rouge, Louisiana. The meeting had two themes for 2004. The first was the issue of nonmarket valuation related to coastal land loss. Specifically, the workgroup was interested in finding the nonmarket value of the coastal land and discussing the issue of whether coastal area protection can be a self-sustaining endeavor in the long run. The second theme involved the use of nonmarket valuation to evaluate the impact of pollution emitted from agricultural sources. The debate centered on the issues of adopting BMPs in agricultural management practices to reduce water pollution.

The primary objective of this workshop was to exchange information on the impact of coastal erosion on ecosystems and livelihood in the Southern Region. Coastal areas in the Southern U.S. and elsewhere have been impacted by environmental problems. For example, in Louisiana, 1,900 square miles have been lost in the past century due primarily to anthropogenic factors. Current rates of coastal land loss are 20-25 square miles a year, a situation that disrupts the economy and livelihood of area residents. Federal and state governments have invested money into restoration efforts at a cost that now exceeds 500 million dollars, and additional support is now being requested at the multi-billion dollar level. Coastal restoration projects may be cost-prohibitive and, even if implemented, may take several decades to achieve their goals. Additionally, the community may even abandon the area even if the restoration process continues, causing unwanted population pressure in other areas. Therefore, as coastal infrastructures decline, the direct impact is most often felt by local economies. This translates into the need to support and preserve coastal resources at the community level. Significant costs are incurred in the purchase, management and maintenance of coastal areas. From the benefit cost analysis (BCA) perspective, a community would be willing to participate only if the realized benefit to the society is higher than the cost they would incur in preserving natural resources.

Pemberton and Mader-Charles presented a study designed to determine whether the degradation of the Nariva swamp can be reduced or eliminated, if the swamp is used economically in its pristine form. Therefore, this study explored whether conservation of the swamp and its use for eco-tourism may represent an economically beneficial use of the resources of the Nariva swamp. The study is based on a cost benefit analysis of an eco-tourism project in the Nariva swamp to determine whether such an eco-tourism project is economically feasible.

Paudel *et al.* indicated that although Louisiana ranks only second after Florida in terms of total coastline, less than 1% of the state's coastline is comprised of road-accessible beaches. Only three small sites are available for public use and beach recreation directly on the Gulf of Mexico. Recently, one of the three areas, known as "Elmer's Island", has been closed and the economic impact has been felt in the adjacent Louisiana coastal areas. The public has demanded that the State acquire Elmer's Island for recreational purposes. This study presents the results of the non-market valuation survey carried out between May, 2003 and July, 2003 to understand the recreational potential of the area to generate economic development in the region. Survey results

from 2,693 respondents indicated that even using a conservative estimate, it is worth purchasing the island for economic growth and natural resource protection in this region. The majority of people support the public purchase and management of the island. It was found that the public ownership and management of the area would be financially and economically sustainable.

Thomas and Stratis argue that many resource-dependent recreational activities may be viewed as jointly produced goods. For example, the recreational activity termed a “hunting trip” might involve the jointly produced components of scenery, walking in a wild area and the actual wildlife harvested. Efforts to compare the value of the joint good to the sum of the disaggregate component parts would likely be problematic for any number of reasons; interaction (leading to non-additivity) among components, components mistakenly omitted or included with the activity, etc. In spite of these problems, it would be useful to better understand the composition of joint goods and their individual component values. This information could allow policy makers to better anticipate welfare changes resulting from actions that affect only a subset of the joint good’s vector of components. They demonstrated the case of alligator meat and hide management under two scenarios: present unrestricted alligator hunting experience (full joint good) and the restricted alligator hunting experience (joint good reduced by imposing a prohibition on the sales of alligator meat and hides). By comparing the hide and meat WTP to market value, Thomas and Stratis addressed the appropriateness of adding this component’s value to the value for the full joint good.

Thomas and Hanson addressed the issue of controlling parasites in catfish farming by introducing black carp, potentially an invasive species, in the production process. The U.S. Fish and Wildlife Service (USF&WS) has recently recommended that actions be taken to restrict the black carp’s movement between states, and even raised the possibility of removing them from United States waters. Thomas and Hanson reviewed the recent actions taken involving the black carp, paying close attention to economic efficiency, incentive compatibility and likelihood of avoiding catastrophic outcomes.

The second theme of the conference was use of nonmarket valuation techniques in evaluating the impact of water pollution in the southern region. Whitehead argues that contingent valuation studies should include measures of quality perceptions as covariates in the willingness to pay model in order to avoid omitted variable bias. He utilized survey data collected by using a telephone survey of landowners from the 12 counties of the upper, middle, and lower Neuse River basin. He found that respondents who perceive that water quality is “poor” are willing to pay more for a quality improvement than those who think water quality is “fair” or better.

Kim *et al.* elicited polychotomous choice format contingent valuation questions to inquire why cattle farmers are not adopting best management practices to improve water quality in Louisiana. Among five alternatives provided for the reasons on why they are not adopting the BMPs, most indicated that lack of familiarity with the BMP and non-applicability to the farm are the major reasons. Very few farmers indicated cost as the factor in BMP non adoption decisions. Results found were consistent across all 16 BMPs in small, medium and large farms.

Thomas and Lyttle-N’Guessan conducted a CV study of WTP for nitrate-reduced well water in

northwest Florida to test for differences in WTP responses between private and public payment vehicles. In contingent valuation (CV) studies, the willingness to pay (WTP) estimate may be influenced by the construction of the survey instrument. The format of the hypothetical payment, or payment vehicle, is particularly important and may affect the WTP estimate. One important aspect in designing the payment vehicle is the choice of the institutional basis, that is, will the payment be made to a private or public institution.

The other papers presented in the meeting consisted of a paper by Smathers and Smathers on the prospect of land sales by land grant universities to fund the current and ongoing budget shortfalls. Bhattarai and Hatch presented a paper on the impact of socioeconomic influences on land use distribution. Another paper by Bhattarai *et al.* demonstrated the demand for public goods by residents using a hedonic model framework.

The editor of this proceeding report would like to first thank all of the authors who contributed papers and their time and effort to this proceeding. I also gratefully acknowledge the financial support of the Farm Foundation, CNREP, and Louisiana State University Agricultural Center. It is my hope that workshops such as this involving people from a wide array of specializations concerned about pollution and coastal land loss would help to further our understandings on the need to preserve and protect our natural resources for the benefit of present and future generations.

Krishna P. Paudel
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**SERA-IEG 30 Meeting Proceeding
2004
Louisiana State University Agricultural Center**

[http://www.agecon.lsu.edu/paudel/SERA %20Meeting%20Proceedings.htm](http://www.agecon.lsu.edu/paudel/SERA%20Meeting%20Proceedings.htm)

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Krishna P. Paudel

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**Carlisle Pemberton and Kathleen Mader-Charles
Department of Agricultural Economics and Extension
University of the West Indies**

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**Carmen J. Lyttle-N'Guessan, Michael Thomas
Florida A&M University**

4. Comparing WTP and Market Values in the Disaggregation of a Recreational Joint Good

**Michael Thomas
Florida A&M University
Nick Stratis
Florida State University**

5. Coastal Area Visit Preference of Louisiana Residents: Nonmarket Valuation Approaches

**Krishna Paudel, Rex H. Caffey, Nirmala Devkota and Larry Hall
Center for Natural Resources Economics & Policy
Department of Agricultural Economics and Agribusiness
LSU AgCenter**

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Gandhi Raj Bhattarai, Diane Hite

Auburn University

David Brasington

Louisiana State University

7. Should The Land Remain In Land Grant Universities? An Analysis of the Issues

Webb M. Smathers, Jr.

Professor of Applied Economics and Statistics

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Diane G. Smathers

Associate Vice Provost

Clemson University

8. Improving Willingness to Pay Estimates for Quality Improvement Through Joint Estimation with Quality Perceptions

John Whitehead

Department of Economics and Finance

University of North Carolina at Wilmington

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Seon-Ae Kim, Krishna Paudel, Jeffrey Gillespie

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10. Evaluating a New Performance Bonding Decision Protocol for Regulating the Release of Potentially Invasive Exotics: The Case of the Black Carp in Mississippi

Michael Thomas

Florida A&M University

Terry Hanson

Mississippi State University

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Gandhi Bhattarai and Upton Hatch

Auburn University