

Creating Economic Opportunity Through Ecotourism/Ecosystem Services in North Carolina

Market-Based Conservation Incentives Workshop

American Forest Foundation

September 10, 2008

Ellicott City, Maryland



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Two Market-based Incentive Mechanisms

Agro-Ecotourism: Demand and Supply

Payments for Ecosystem Services



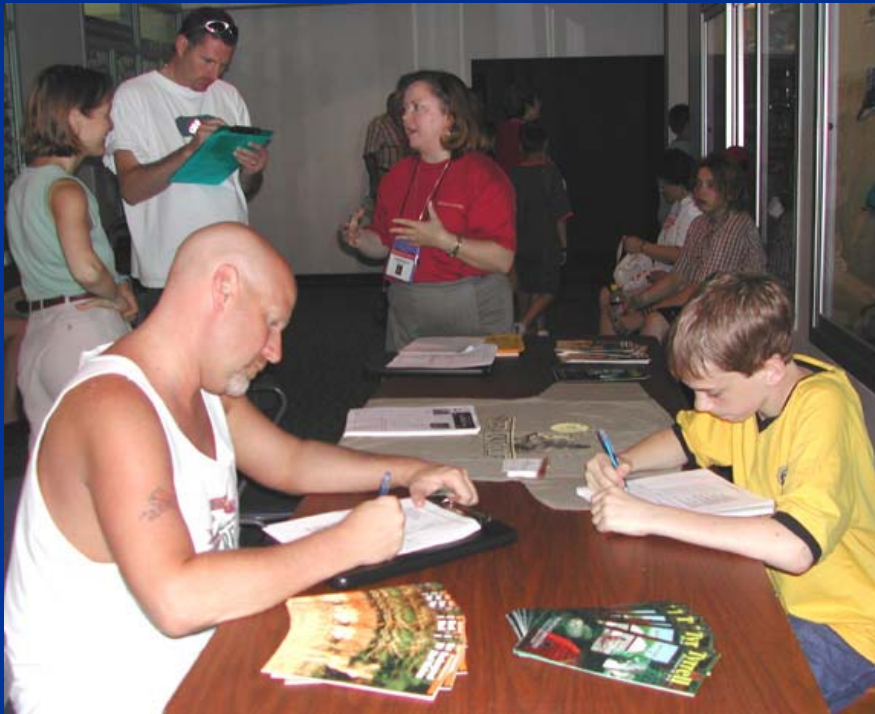
Ecotourism Incentive Mechanism

Demand for Ecotourism

Supply by landowners and community residents to foster economic development



Outer Banks Tourist Demand Survey



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- 202 surveyed
- 26 states and 4 countries
- 81% traveling w/family

Tourism Knowledge



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- 58% know the red wolf is an endangered species;
- 33% know red wolves are located 35 miles inland from Outer Banks;
- 14% know about red wolf trips; BUT only 1% have attended a trip

Red Wolf Center

- 89% of visitors interviewed would like to visit the proposed Red Wolf Center
- 76% of visitors would
 - 1) like to visit the center and
 - 2) pay at least \$5 for admission



Red Wolf Center: Revenue

(76% would pay \$ 5 admission)

In a 12-week summer season, with approximately 182,000 visitors, the center could generate nearly \$1M in revenue



Day Trip Activities

Most Selected by Visitors

- 52% River cruise
- 43% Trail walking
- 37% Visit Red Wolf Center**
- 27% Crabbing
- 26% Wolf howling**
- 26% Kayaking
- 25% Viewing a wild bear



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COMMUNITY SURVEY

The Supply Side



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14 Farmers, Guides & Fishermen

13 Businesses & Educators

8 Residents

50+ High School students

16 Agency/Government/NGO

(USFWS, 4-H, RWC, Extension Service, TC staff, VC, PLNWR)

Community Interests

- Economic growth
- Protecting the natural beauty and rural setting of the counties
- Providing jobs for youth
- Preserving historical, small-town feel



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What can residents supply?

- Wilderness and natural beauty of rural setting
- Wildlife viewing
- Educational tours about local wildlife, farming and fishing industries, and nature-based activities such as hiking and water recreation



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Current Project Activities

- **Increased Information on Activities**
- **Define Transfer Mechanism**
 - **Tourism Tax?**
 - **State Subsidy?**
 - **Distribution?**
 - **Ecosystem Service Payments?**
- **Marketing**



Credit: Dave Menke, USFWS



Red Wolf Habitat Ecosystem Services

- Purpose: Estimate the economic benefits, including ecosystem services, of protecting red wolf habitat, and explore and develop private market solutions to benefit private landowners for contributing to public wildlife conservation goals.
- Benefits: Ecosystem services: water quality, carbon sequestration, control of invasive species, hunting revenue and avoided costs of infrastructure repair

BASIC QUESTION

What can we say about the feasibility and role of private markets in valuing and compensating environmental services (ecological functions) provided by agricultural producers/landowners?



Red Wolf Ecosystem Services

- Phase I: Survey of Area Landowners on protecting red wolf habitat through ecosystem service payments
- Phase 2. Develop estimates of ecosystem service benefits from carbon storage and improved water quality. Develop policy recommendations for implementing market-based incentives

Landowner Attitudes for PES

- 50% of respondents believed protecting wildlife habitat was an important land use
- 49% willing to participate in a PES program; 39% unsure; 12% not willing
- Past participation in conservation programs is *not* associated with willingness to participate in a PES program
- Level of income influences willingness to participate in a PES program

Landowner Attitudes for PES (con't)

- There is a strong correlation between willingness to protect wildlife habitat and to participate in PES programs
- Not a strong correlation between protection of red wolf habitat and a PES program
- Landowners could not define what ecosystem services are
- Most respondents would need more information: how contract and level of effort would affect their operations

Lessons for Private Ecosystem Service Markets

- Measure and quantify environmental services derived from ecosystem restoration (experience and modeling).
- Choice of economic techniques to value services is crucial
- Estimate unit values of services provided (more research and dynamic)
- Market in services must be viable and competitive
- Benefits to landowner must outweigh the costs

Take Home Messages

- Know your communities, what landowners and residents want, and take market research seriously
- Role for the public sector in guiding market development and conduct
- Consider complementary incentives: conservation banks, cost-share of practices, safe-harbor agreements, tax credits, revenue sharing, and other incentives to complement private markets

Thank You



Conclusions

ES markets: Promises

- Attract more financing and increase private incentives for protection of ecosystem and their services
- Make conservation more competitive with alternative land uses
- One more tool in the tool box for conservation

ES markets: Challenges

- Close gaps in measurement and valuation of ES
- Make ES measurement and valuation user friendly
- Require mitigation markets and govt. payment schemes to employ strong currencies that capture full service values
- Close gaps in incentives for production of public good ecosystem services
 - Sufficient funds public funding for public good ES?
 - Identify and use bundling opportunities
 - Reduce regulatory obstacles to stacking