
AAE 06001**March 2006**

Developing the Nature-based Tourism Sector in Southwestern North Dakota¹

Nancy M. Hodur, F. Larry Leistritz, and Kara L. Wolfe²

Rural communities around the country are increasingly looking to the tourism sector as a source of economic growth. With substantial growth in tourism over the past several decades, both in the United States and elsewhere in the industrialized world, tourism promotion has become an important economic development strategy (Dowling 2003, Honey 2002, Gibson 1993). In the United States, the growth of the travel and tourism industry outpaced Gross Domestic Product growth in all but 4 of the past 46 years (Wilkerson 2003). The notion that tourism and recreation can contribute to the economic base of rural areas gains further support when socioeconomic trends in rural recreation counties are examined (Johnson and Beale 2002, Reeder and Brown 2005). Since 1970, population growth of the 327 rural U.S. counties most economically dependant on recreation-tourism activities has been more than double the population growth in nonmetro counties overall (Johnson and Beale 2002). During the 1990s, population growth in these tourism-dependent economies averaged 20.2 percent, compared to 6.6 percent for counties that were economically dependent on farming and 2.3 percent for those dependent on mining. Similarly, Reeder and Brown (2005) examined socioeconomic trends during the 1990s for 311 rural recreation/tourism counties and found that tourism and recreational development led to higher employment growth rates, earnings, and income levels.

Southwestern North Dakota, like much of the Northern Great Plains region, has historically been economically dependent on agriculture and the energy industry. Since the early 1980s, the region has experienced substantial out-migration and population loss as both the agricultural and energy sectors have undergone substantial restructuring, resulting in major decreases in employment (Coon and Leistritz 2003). The patterns of economic restructuring, out-migration, and population decline throughout the region led to the designation of the eight southwestern counties of North Dakota (see Figure 1) as a Rural Economic Area Partnership (REAP) zone in 1995; REAP is a U.S. Department of Agriculture program established to help address critical economic and community development issues unique to rural areas by facilitating a collaborative and citizen-led effort to stimulate economic development and diversification (USDA 2004). Economic development initiatives in the REAP zone have included efforts to enhance several of the area's primary sectors including agriculture,

¹Paper for presentation at the 45th Annual Meeting of the Southern Regional Science Association, St. Augustine, FL, March 30-April 1, 2006.

²Hodur and Leistritz are Research Scientist and Professor, respectively, in the Department of Agribusiness and Applied Economics, and Wolfe is an Assistant Professor in the Department of Apparel, Design, Facility and Hospitality Management, North Dakota State University, Fargo. Financial support was provided by the U.S. Department of Agriculture as part of the Regional Center for Rural Development in North Dakota, the North Dakota Agricultural Experiment Station, and the SW Region Rural Economic Area Partnership (REAP) zone.

manufacturing, energy, tourism, and other exported services. Tourism, and particularly nature-based tourism, has been identified as a primary sector with growth potential (Hodur et al. 2004).

The purpose of this study was to: 1) identify opportunities for expanding the tourism sector in southwestern North Dakota, 2) identify challenges and obstacles facing the area's tourism businesses, and 3) frame key issues and outline potential options for area decision makers (the primary clientele for the study).

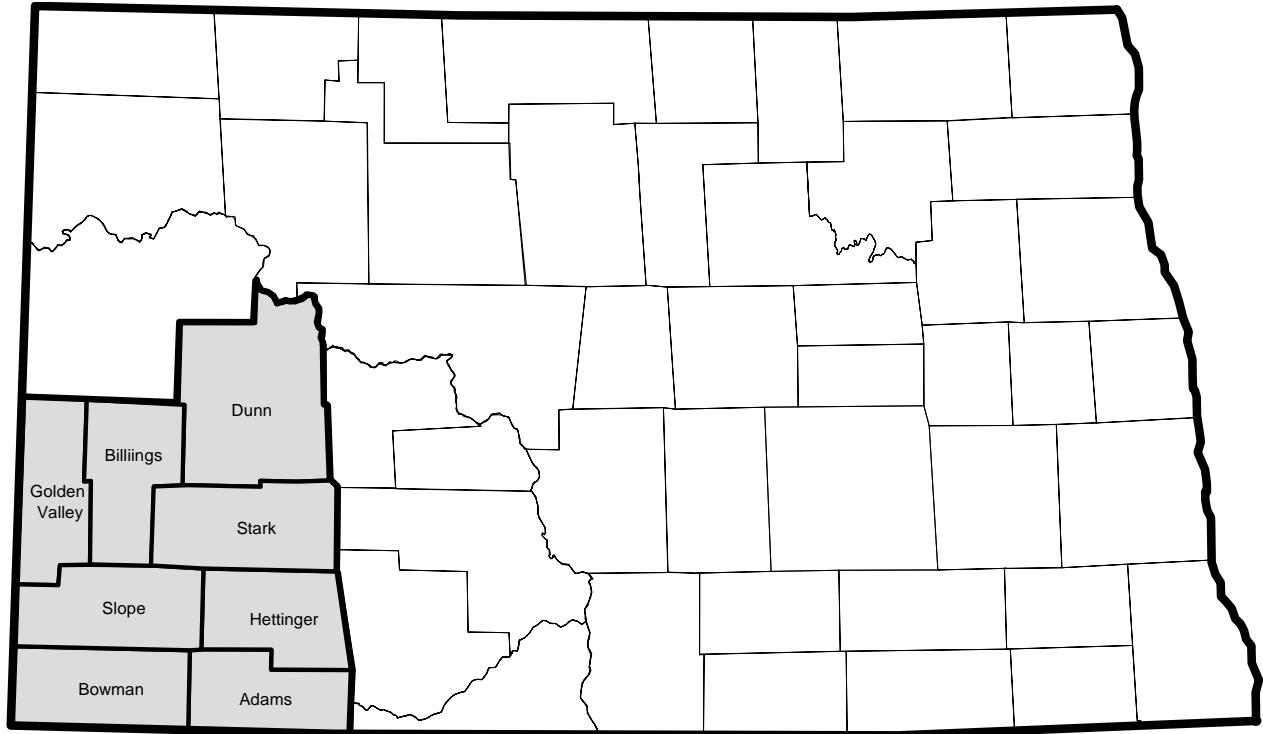


Figure 1. Study Area, Southwest REAP Zone, North Dakota.

Methods

A survey of the region's agricultural and nature-based tourism businesses provided insights about the services offered by these enterprises, their operating history, months of operation, clientele attributes, and proprietors' perceptions of potential for growth and expansion, as well as other characteristics. Focus group meetings and interviews with tourism business operators throughout the REAP zone provided insights about the circumstances that led these individuals to launch their enterprise, trends affecting their business and others like it, obstacles

encountered, and potential for future growth. Personal interviews with community leaders, local officials, representatives of area attractions, financial institutions, area economic development professionals, and other individuals associated with the sector, provided additional insights regarding recent trends in the tourism sector, as well as the area's strengths, weaknesses, and potential for future tourism development. In all, 38 REAP zone firms participated in the business survey, 31 individuals participated in focus groups, and more than 40 individuals in various roles throughout the community were interviewed by the project team. (Throughout the paper, references to the SW-REAP zone and the Southwest region will be used interchangeably to describe the eight-county study area.) The study was conducted during the spring and summer of 2004, with the aim of making the final report available to decision makers prior to the 2005 state legislative session (Leistriz et al. 2004).

The remainder of this paper is organized into four sections. First, the study region's recent economic trends are briefly described, with emphasis on recent tourism sector growth, followed by a profile of the region's agricultural and nature-based tourism businesses. The third section summarizes key findings from the focus groups and personal interviews. Salient issues affecting the area's strengths and weaknesses, as well as potential for future growth of tourism businesses and threats to that growth, are examined and options for addressing these concerns are discussed. Conclusions and implications complete the report.

Regional Economy and Resources

The basic sectors of a region's economy (a.k.a., primary sectors) sell their products or services to markets outside the region (Shaffer et al. 2004). The resulting flow of payments into the region is often referred to as basic income, or as the region's economic base (Leistriz 1998). In 2002 (the last year for which complete information was available), the three largest basic sectors of the study region's economy were energy, agriculture, and tourism (Table 1). In 2002, the energy sector (i.e., exports from the region of oil and natural gas) constituted 35 percent of the region's total economic base, while agriculture (i.e., receipts from sales of crops and livestock, as well as federal commodity program payments) and tourism (i.e., all expenditures by out-of-state visitors that accrue to firms and households within the region) each accounted for about 19 percent of total basic income (Coon and Leistriz 2004). Over the five-year period, 1998-2002, total basic income grew by about \$174.4 million (17 percent), after adjusting for inflation. The largest component of this growth was in energy sector sales, an increase of \$113 million or 37 percent, largely attributable to rising world energy prices. The tourism sector registered a gain of \$74.5 million (50 percent). The growth of the tourism sector reflects a substantial expansion in visitor-oriented activities throughout the region including visitation to attractions such as the North Dakota Badlands and recreational activities such as hunting, hiking, biking, and other nature-based tourism activities.

The region's world-class upland game bird hunting has become a key drawing card for visitors from across the country and a key contributor to the growth in visitor numbers in the region. With the advent of the Conservation Reserve Program (CRP) in the late 1980s, substantial acreages of marginal cropland were returned to grass. The CRP lands provided

excellent nesting cover for upland game birds, and the region's pheasant population has burgeoned (Bangsund et al. 2004). Increasing pheasant populations have drawn growing numbers of hunters, both from elsewhere in North Dakota and from out of state. Accordingly, a cottage industry has emerged offering visitors a wide variety of services such as guest house lodging (both with and without meals included), catering, guiding and outfitting, and bird cleaning, to name just a few (Hodur et al. 2004).

Table 1. Economic Base (Sales for Final Demand) of SW-REAP Zone, 1998 and 2002, by Economic Sector

Sector/Industry	2002	1998	Change 1998-2002	
	-----millions of 2002 dollars-----		---percent---	
Agriculture	226.1	275.1	(49.0)	(17.8)
Manufacturing	95.1	88.5	6.6	7.5
Energy	417.4	304.2	113.2	37.2
Tourism	223.6	149.1	74.5	50.0
Exported Services	19.9	12.3	7.6	61.8
All Primary Sectors	982.1	829.2	152.9	18.4
Federal Payments	202.3	180.8	21.5	11.9
Total Basic Income	1,184.4	1,010.0	174.4	17.3

Source: Coon and Leistritz (2004).

Profile of Nature Tourism and Outdoor Recreation Businesses

A survey of agri-tourism, nature-based tourism, and outdoor recreation-related enterprises across North Dakota provided insights about this emerging industry. (For a complete discussion of survey methods and findings, see Hodur et al. 2004.) Among the survey respondents were 38 businesses located within the eight counties of the Southwest REAP zone. In this section, key attributes of nature-based tourism and outdoor recreation-related businesses in the Southwest REAP region are briefly summarized and contrasted with the findings of the statewide survey.

Type of Business

The respondents were asked to characterize the main focus of their business, as well as to identify specific services they provide. Within the SW-REAP region, respondents most frequently indicated that 'hunting lodge, guiding, fee hunting' was their primary business focus (43 percent), followed by 'campground, cabins, or a limited service resort' (23 percent) (Table 2). Rental houses or other forms of lodging, without any other hunting-related services, fell into the latter category.

Respondents in the Southwest region most frequently offered ‘lodging, meals, food and beverage’ services (73.7 percent), while ‘hunting-related services’ (e.g., guiding, fee hunting) were the next most frequently reported category of services (58.3 percent) (Table 2).

Table 2 . Primary Business Focus and Services Provided, Outdoor Recreation-related Businesses, SW-REAP Zone and Statewide, 2003

Item	SW-REAP Zone	Statewide
Primary Business Focus:	-----percent-----	
Hunting lodge, guiding, fee hunting	42.9	45.3
Campground, limited service resort	22.9	10.4
Agri-tourism, birding, fossil digs	8.6	7.3
Bed and breakfast	8.6	16.1
Fishing guides, full-service resort	5.7	13.5
Other	11.4	7.3
(n)	(35)	(192)
Type of Services Provided:		
Lodging, meals, food & beverage	73.7	70.9
Hunting-related services	58.3	61.7
Fishing and/or water-related services	13.9	30.1
Wildlife viewing and/or sightseeing	14.7	18.7
Hiking, biking, winter activities	16.7	16.4
Agricultural and/or farm/ranch activities	16.7	14.5
Fossil digs, archeological exploration, historical tours	11.8	4.4
(n)	(36)	(147)

Source: Hodur et al. 2004.

Business Operation and Clientele

Survey respondents most frequently indicated that their outdoor recreation-related businesses had been established during the 1990s (46 percent) or since 2000 (24 percent) (Table 3). Seventy percent of the businesses in the Southwest region had been established since 1990, compared to 77 percent statewide. Less than 10 percent of businesses in either the Southwest region or statewide established their businesses prior to 1980.

About 65 percent of the respondents indicated that their operation was seasonal, while the remainder operate year round (Table 3). Businesses most frequently operated in October (87.5 percent), November (70.8 percent), and September (54.2 percent).

Table 3. Business Operation and Clientele Attributes, SW-REAP Zone and Statewide, 2003

Year / Month	SW-REAP	
	Zone	Statewide
Year Business was Established:	-----percent-----	
Before 1980	8.1	7.0
1981 - 1990	21.6	16.1
1991 - 1999	46.0	43.6
2000 - 2003	24.3	33.7
(n)	(37)	(186)
Period of Operation:		
Year round	35.1	36.0
Seasonal	64.9	64.0
(n)	(37)	(189)
Customer Days, 2002:		
Zero	0.0	1.3
1 to 150	73.1	62.9
151 to 300	7.7	5.9
More than 300	19.2	29.8
(n)	(26)	(151)
Ave. No. of Customer Days	937	852
Median No. of Customer Days	60	90
Customer Residence:		
Local residents	5.1	10.7
Elsewhere in North Dakota	20.3	18.5
Adjacent states (MN, SD, MT)	23.4	22.6
Elsewhere in the United States	48.7	46.0
International	2.3	1.5
(n)	(35)	(180)
Plans for Business, next year:		
Expand	38.5	39.2
Renovate	30.8	27.3
Add services or activities	23.1	25.9
Close or sell	7.7	9.8

Source: Hodur et al. 2004.

The number of customer days reported by Southwest region businesses exhibits a bimodal distribution, wherein most respondents reported fewer than 150 customer days while a smaller, but still substantial, group reported 300 or more customer days (Table 3). In 2002, the average number of customer days was 937, reflecting the influence of a few very large observations, while the median value was 60 (i.e., half of the respondents reported 60 or fewer customer days).

About 25 percent of the clientele of Southwest region outdoor recreation-related businesses came from the adjacent states of Minnesota, South Dakota, and Montana, and about half were from elsewhere in the United States. International customers were infrequent with only 2 percent of respondents' customers from outside the United States. About 25 percent of respondents' customers in the Southwest region were North Dakota residents. Clientele residency in the Southwest region was comparable to that of the statewide sample (Table 3).

Whatever their current level of operation, the respondents in the Southwest region were optimistic about the future. Fifty percent believed that the number of customer days would increase in the next year (data not shown) while approximately one-third believed there would be no change in customer days and only 19 percent predicted the number of customer days would decline. Almost two in five of these operators (38.5 percent) plan to expand their current operation the next year, while 31 percent plan to renovate some portion of their facilities and 23 percent plan to add services or facilities (Table 3). Only about 8 percent plan to close or sell their business. The responses of the Southwest region businesses were similar to those from elsewhere in the state.

Gross and Net Revenue

The average gross revenue for Southwest region businesses in 2002 was nearly \$78,000, with an average net revenue (net profit) of almost \$11,000 (Table 4). However, average values for gross and net income were not representative of most of the region's businesses. The median gross revenue for the Southwest businesses responding to the survey was only \$14,225. Similar to the distribution of customer days (see Table 3), many businesses have relatively few customer days and limited gross revenue, while a few businesses had substantial numbers of customer days and higher gross revenues.

Net revenue (net profit) in 2002 averaged almost \$11,000 for the study area businesses, while the median net revenue was about \$4,200 (Table 4). One in five of the respondents in the Southwest region reported zero or negative net revenues and more than two in three reported net revenues of less than \$10,000 (data not shown). Alternately, 12 percent of respondents had net revenue of greater than \$50,000. Low net revenue (and particularly the negative values) may be attributable to the fact that many of the businesses surveyed were relatively new start-ups. Business operators may be re-investing a substantial part of their revenues into business expansion.

Only 22 percent of study area respondents reported that their outdoor recreation-related business was their primary source of household income (Table 4). On average, respondents reported receiving 24 percent of their household income from the business; the median value was 10 percent.

Table 4. Gross and Net Revenue of Outdoor Recreation-related Businesses and Contribution of Business to Household Income, SW-REAP Zone and Statewide, 2002

Item	SW-REAP Zone	Statewide
Gross Revenue, 2002:		
Average (dollars)	77,970	57,999
Median (dollars)	14,225	10,000
Net Revenue, 2002:		
Average (dollars)	10,949	9,730
Median (dollars)	4,204	2,000
Business is Primary Source of Household Income (percent of respondents)	21.6	14.8
Average Percent of Household Income from Business	24.2	24.7
Median Percent of Household Income from Business	10.0	10.0

Needs for Information or Technical Assistance

‘Marketing/advertising’ and ‘web site design/Internet applications’ were most frequently identified by Southwest region respondents as areas where information or technical assistance would be most helpful in operating or expanding their business (Table 5). More than three-fourths of respondents indicated that information or technical assistance regarding ‘marketing/advertising’ would be helpful, while two-thirds would find information or assistance in ‘web site design/Internet applications’ helpful. Between one-third and one-half of the respondents also believed that information regarding ‘habitat improvement/land management,’ ‘legal issues,’ and ‘industry trends and updates’ would be helpful (Table 5).

Table 5. Types of Information or Technical Assistance Considered Helpful in Operating or Expanding Outdoor Recreation-related Businesses, SW-REAP Zone and Statewide, 2003

Item	SW-REAP Zone		Statewide	
	Average Score ¹	Helpful ²	Average Score ¹	Helpful ²
		--percent--		--percent--
Marketing/advertising	4.1	77.4	4.0	70.3
Web site design/Internet applications	3.8	67.7	3.8	65.8
Habitat improvement/land mgt.	3.4	38.7	3.1	43.2
Legal (insurance, liability, state regs.)	3.3	40.6	3.4	48.6
Industry trends and updates	3.2	48.4	3.1	41.3
Personnel mgt./guest relations	3.0	32.3	2.9	25.2
Business/financial mgt./planning	2.8	22.6	2.8	25.3
	(n) ³	(31)	(169)	

¹ Average score based on a scale from 1 to 5 where 1 is not helpful and 5 is very helpful.

² Percent who rated item as very helpful (5) or helpful (4).

³ Average number of responses per variable.

Perceptions of Economic Development Potential

Southwest area respondents were virtually unanimous in rating ‘hunting and fishing’ as activities with high economic development potential (Table 6). More than half of the respondents indicated ‘off-road activities’ (e.g., hiking, mountain biking), ‘birding and wildlife viewing,’ and ‘working farm and ranch activities’ were activities with high economic development potential. Ratings by the Southwest region respondents were similar to those for the statewide sample, particularly regarding the economic potential of hunting and fishing. Differences in ratings for some other activities likely reflect the unique resources of the Southwest region; for example, ‘fossil digs and archeological explorations’ were rated by Southwest region respondents as activities with relatively high economic development potential, as were heritage tours.

Table 6. Perceptions of the Economic Development Potential of Various Outdoor Recreation Activities in North Dakota, Outdoor Recreation-related Business Proprietors, SW-REAP Zone and Statewide, 2003

Activities	SW-REAP Zone		Statewide	
	Average Score ¹	High Potential ²	Average Score ¹	High Potential ²
Hunting and fishing	4.6	93.9	4.6	90.2
Off-road activities (hiking, biking)	3.7	62.5	3.4	49.7
Birding, wildlife viewing	3.5	59.4	3.6	50.8
Working farm and ranch activities (farm tours, trail rides, corn maze, etc.)	3.5	56.3	3.4	46.3
Heritage tours	3.4	46.9	3.0	36.1
Fossil digs, archeological explorations	3.3	43.8	2.9	27.7
Water sports (canoeing, sailing, water skiing, jet skis, etc.)	3.1	37.5	3.4	47.2
Off-road motor sports (ATVs, dirt bikes)	2.8	22.6	3.2	39.2
	(n) ³	(32)	(178)	

¹ Average score based on a scale from 1 to 5 where 1 is no potential and 5 is great potential.

² Percent rating activity either 5 (great potential) or 4 (some potential).

³ Average number of responses per variable.

Issues Related to Tourism Sector Development

Nearly all (94 percent) of Southwest region respondents agreed that the demand for their type of business had increased in the last three years (Table 7). They were also nearly unanimous in their opinion that there should be more promotion of the state as a tourism destination (91 percent) and that outdoor recreation-based tourism offers economic development opportunities both for their local area (86 percent) and throughout the state (86 percent). At the same time, a majority of Southwest region operators indicated they need more customers to operate at capacity (66 percent) and that uncertainty regarding limits on non-resident hunters had hurt their business (56 percent). The Southwest operators were not particularly concerned about their ability to purchase liability insurance (none agreed that they were unable to purchase insurance), their ability to secure financing for their business (only 6 percent agreed that this was a problem), or their ability to attract new customers (only 12.5 percent agreed). Similarly, only 15 percent of respondents agreed that North Dakota has too few attractions to make tourism a viable economic development opportunity (Table 7).

The pattern of responses from the Southwest group was similar to those of the statewide sample. However, the SW-REAP zone respondents were even more positive that demand for their type of business had increased (94 percent vs. 72 percent statewide) and that there should be more promotion of the state as a tourism destination (91 percent vs. 76 percent) (Table 7).

Table 7. Issues and Attitudes Related to Outdoor Recreation-related Tourism Sector, SW-REAP Zone and Statewide, 2003

Issue	SW-REAP Zone		Statewide	
	Average Score ¹	Agree ²	Average Score ¹	Agree ²
Demand for my type of business has increased in the last three years	4.4	94.3	4.0	72.1
There should be more promotion of the State as a tourism destination	4.4	91.4	4.2	75.7
Outdoor recreation-related tourism enterprises offer my local area economic development opportunities	4.5	85.7	4.1	77.0
Outdoor recreation-related tourism enterprises offer rural areas throughout the state economic development opportunities	4.4	85.7	4.2	78.1
I need more customers to operate at full capacity	3.6	65.7	3.8	63.6
Uncertainty regarding limits on non-resident hunters has hurt my business	3.6	55.6	3.7	56.7
Regulatory, legal, or liability issues are constraints to my type of business	3.7	50.0	3.7	51.1
My business is seasonal and I would like to find other ways to attract customers throughout the year	3.2	47.1	3.3	46.9
Liability and/or comprehensive insurance is prohibitively expensive	2.9	31.4	3.4	50.6
North Dakota has too few attractions to draw enough visitors to make tourism a viable economic development opportunity	2.4	14.7	2.2	18.9
I am currently having trouble attracting new customers	2.2	12.5	2.8	32.2
I am unable to secure financing for business development or expansion	2.6	6.4	2.5	15.9
I am unable to purchase liability and/or comprehensive insurance/insurance is unavailable	2.0	0.0	2.1	13.0
(n) ³		(34)		(175)

¹ Average score based on a scale from 1 to 5 where 1 is strongly disagree and 5 is strongly agree.

² Percent who strongly agree (5) or agree (4).

³ Average number of observations per item.

Summary

The survey of Southwest region outdoor recreation- and nature-based tourism businesses revealed that a large segment of businesses had a hunting focus. For 43 percent of respondents, hunting services were the primary focus of their business, and 58 percent provide hunting-related services. In addition, the second most common business type (campgrounds, cabins, limited service resort) appears to include a number of businesses that primarily rent accommodations to hunters.

Most of the businesses in the Southwest region were relatively new (more than 70 percent were established since 1990), small (most had fewer than 65 customer days and less than \$15,000 in gross revenue), and provide only supplemental income for their operators (median net revenue was about \$4,200 or about 10 percent of total household income). These characteristics were similar to those of their counterparts in other areas of the state, as well as to nature-tourism businesses around the world (McKercher 1998, MacLellan 1999). The Southwest region operators generally were quite positive about the demand for their type of business and the economic development potential of outdoor recreation-based tourism.

Opportunities and Challenges in Expanding the Nature-based Tourism Sector

Focus group and personal interview participants offered their views on a wide range of topics related to tourism and outdoor recreation in the Southwest region. Focus group participants shared their experiences and motivations for starting their outdoor recreation-related business, as well as some of the challenges they face today and faced as they started their business. In addition, participants discussed recent sector trends, opportunities for, and constraints to, sector enhancement. Several themes emerged, some unique to specific locales within the Southwest region or a specific business type and some consistent throughout the region. Personal interviews with more than 40 individuals in various related roles in 7 communities offered a different perspective than business owners regarding recent trends, obstacles, and opportunities for growth and expansion. Often the comments of personal interviewees were more general than the focus groups and more reflective of issues specific to their local community and the immediate area.

The key points arising from the focus group and personal interviews are summarized below, organized into the following categories: assets, constraints/challenges, and opportunities for developing the region's tourism sector. The topics presented in this section are not intended to be exhaustive of all issues relevant to the development and expansion of nature-based tourism in the Southwest region. Rather, this section identifies and characterizes some of the broader themes identified and discussed by research participants.

Assets

Abundant natural resources, a rich cultural history, and a multitude of recreational opportunities were consistently identified as the region's greatest assets. Respondents identified specific natural resource amenities such as the Theodore Roosevelt National Park, the Maah Daah Hey Trail, the Killdeer Mountains, Lake Sakakawea, and White Butte (the state's highest point) as area attractions. The region's landscape and wide-open vistas provide visitors with experiences unique to North Dakota.

The Killdeer Mountain Battlefield, the Medicine Hole, Buffalo Jump, and old Fort Berthold were a few examples of the region's cultural history identified by participants. More contemporary themes of the cowboy culture and rodeo (Killdeer is home to the state's oldest PRCA [Professional Rodeo Cowboys Association] rodeo), as well as the rich heritage associated

with farming and ranching, were also cited as examples of the area's cultural history. Many individuals that participated in the research effort expressed the view that the region's cultural resources are often overlooked and definitely under developed and under utilized.

In addition to unique culture and landscape, the region's world-class pheasant hunting, as well as other types of hunting activities, was nearly unanimously identified as one of the region's greatest assets. Other participants, however, quickly pointed out that while hunting may be one of the area's key drawing cards, it is not the region's only recreational attraction. Biking, birding, wildlife viewing, horseback riding, working farm and ranch activities, paleontological activities including field tours and fossil digs, star-gazing, and simply enjoying the unique landscape and culture of the region were frequently mentioned as examples of the recreational opportunities available in the region. In addition to scenic beauty and the area's abundant physical resources, many participants cited one often overlooked strength: friendly people and small-town Western hospitality. Many participants recounted visitors' and guests' compliments on the region's refreshing small town atmosphere and the hospitality of its residents.

Constraints, Challenges, and Threats

Three major themes were identified by participants as constraints to expansion of the sector: 1) issues of perception, 2) a shortage of resources, both human and financial, to promote the area, 3) a lack of services and infrastructure, and 4) state policy issues.

Many research participants indicated they believed out-of-state visitors' perceptions and images of the state were inaccurate. Some participants thought non-residents tended to think of North Dakota as a cold and barren land with not much to do or see. They believed the key to expanding the tourism sector was to address these kinds of misperceptions. Local residents' negative attitudes and perceptions about the potential for developing the sector and local resistance to businesses that offer recreation-related activities and services were also cited as substantial impediments to sector development. Local resistance, coupled with concerns that out-of-state hunters were no longer welcome, was of special concern to businesses that focused on hunting and hunting-related services.

In nearly all circumstances, the shortage of resources, both human and financial, was identified as an impediment to sector enhancement. The lack of state funding for visitors centers or public cost-share programs for new businesses were cited as examples. Often community volunteers attempt to offset the lack of financial resources. However, as often is the case in small rural communities, the same individuals may participate in many different organizations and as a result are simply overextended. Limited infrastructure, such as adequate accommodations in some areas, distance to airports, too few or under developed attractions, limited funding for travel information centers, and the distance from a population center from which to attract potential visitors were also cited as constraints to sector expansion.

Recent changes and/or proposed changes in state laws regulating out-of-state hunters were often highlighted as an impediment to the continued development of the tourism sector in the Southwest region. Some participants indicated that the restrictions had already impacted many Main Street businesses. Operations that provide guided hunts or offer fee hunting indicated their business had not been particularly impacted, but noted that many other businesses that cater to the free-lance hunters (those that do not hire a guide or use any type of fee hunting arrangement), such as restaurants and gas and convenience stations, had been impacted by restrictions on out-of state hunters.

Opportunities

While specific activities and services that participants viewed as offering the greatest opportunity varied somewhat within the region, optimism for growth in nature-based and outdoor recreation-related tourism was wide spread. While the Theodore Roosevelt National Park was specifically cited by many as the region's keystone attraction, other activities such as hunting, hiking, biking, birding, wildlife viewing, and cultural and heritage activities were cited as examples of activities that have substantial economic development potential.

Generally speaking, most participants viewed the regions' opportunities as limited only by one's creativity. While historically tourism has not been central to the economy or the social fabric of the region, many believe the region has such unique assets and natural resource amenities that visitation and tourism will play an increasingly important role in the future.

Issues and Discussion

In the course of the project, two issues emerged as particularly salient and suitable for action by area leaders. A brief explanation of each issue is followed by a discussion of relevant background and recent actions.

Issue – Hunting Access

While expanded hunting has been a major source of growth in tourism for the Southwest region, guided and fee hunting has been blamed for making hunting access for local and in-state sportsmen more difficult. Groups claiming to represent in-state hunters charge that outfitters are leasing most of the best hunting land, that wealthy out-of-state hunters are purchasing substantial amounts of land, and that access to attractive hunting land is becoming extremely difficult for the average sportsman. Particular concerns have been raised regarding access for younger hunters, who are considered less able than others to afford access fees.

Based in part on concerns over access, a number of proposed restrictions on guides/outfitters and/or on non-resident hunters were introduced in the 2001 and 2003 North Dakota legislative sessions. The 2003 legislative session enacted legislation that (1) raised license fees for non-resident small game (i.e., pheasant) hunters, (2) limited the number of days non-residents can hunt (now 10 days) without purchasing an additional small game license, and

(3) established a new licensing and fee structure for guides and outfitters. These new restrictions on non-resident hunters were blamed by some in the Southwest for a reduction in the number of non-resident hunters during the 2003 season. In any event, the experience in 2003 pointed out the vulnerability of a tourism sector based on non-resident hunters to changes in state regulations or to perceptions that hunting access in a particular area is difficult.

Discussion

The North Dakota Game and Fish (NDGF) Department has responded to access concerns by expanding its Private Lands Open To Sportsmen (PLOTS) program. The PLOTS program was accelerated in 2002 with the creation of three new private land biologist positions and use of \$1.5 million per biennium from the NDGF reserve fund. In addition, the 2003 legislature approved five additional positions and another \$3.3 million per biennium. The 2005 legislature (with encouragement from a number of Southwest area leaders) provided additional resources for the PLOTS program and added a community match provision which allows communities that wish to attract hunters to provide additional incentive payments for nearby landowners to enroll attractive lands (Freeman 2005). As a result of these steps, land enrolled in the PLOTS program statewide has risen from less than 150,000 acres in 2001 to more than 800,000 acres in 2005 (Bihrlé 2003, Freeman 2004, Freeman 2005).

Issue – Wildlife Habitat Enhancement

Several focus group participants that offer hunting-related services (guiding and fee hunting) indicated that pheasant populations in particular are quite responsive to land management practices. Outfitters cited their own efforts, in planting trees, developing water, and establishing nesting cover and food plots, that demonstrate that the pheasant populations on their lands have been enhanced by these practices. Their view is that pheasant and other wildlife populations could be greatly expanded by more widespread habitat enhancement efforts. They also believe that landowners are now beginning to regard wildlife as a possible source of revenue and thus may be more receptive than in the past to implementing wildlife-friendly practices.

Discussion

This issue has been and is being addressed to some extent by the CoverLocks program of the NDGF Department (Bihrlé 2001), which involves establishing trees and shrubs (minimum of 5 acres) together with nesting cover (grass) and food plots, along with granting public access to the remaining 140 acres of an enrolled quarter-section. Landowners receive an up-front payment in exchange for a 30-year hunting access agreement, as well as an annual rental payment. Funding from the NDGF Department and the USDA-Conservation Reserve Enhancement Program covers most of the cost of cover establishment (Bihrlé 2001).

Several research participants suggested expanding and enhancing the CoverLocks program and felt that additional resources for technical assistance and education for landowners who are interested in enhancing wildlife habitat on their lands would complement the program.

A Wildlife Extension Service (possibly structured as part of the present Private Lands programs of the NDGF Department, or as a program of the North Dakota State University (NDSU) Extension Service, or possibly as a joint effort of the two entities) was suggested as a way to provide this type of information and assistance. Further, the NDSU Hettinger Research/Extension Center was identified as a unique state and local resource positioned to conduct research and outreach on land management practices that would enable agricultural producers and landowners to maximize their combined returns from agriculture and wildlife-based recreation.

An initial step toward providing information on multiple-use management of agricultural land in the region was the initiation in 2005 of a major NDSU research and demonstration project to evaluate the economic and environmental consequences of management practices conducive to both wildlife and animal agriculture (NDSU 2005). Funded by the USDA National Research Initiative program and based at the Hettinger Research/Extension Center, the four-year project will include field experiments, a survey of area landowners, analysis of the effects of alternative management schemes on farm/ranch profitability, and an extensive outreach effort.

Conclusions and Implications

Because of the patterns of economic restructuring, out-migration, and population decline throughout the study region, the eight counties in the study area were designated as a USDA Rural Economic Area Partnership (REAP) zone in 1995. The program was created to address critical economic and community development issues and facilitate collaborative and citizen-led efforts to stimulate economic development and diversification. With that mission in mind, this study was designed to be more than an academic exercise. It was designed to be a tool which the SW REAP zone could use to enhance and encourage development and expansion of a fledgling tourism industry in the area.

Considering the relative newness of the tourism industry in the area, one of the first goals was to profile the region's nature-based and tourism-related businesses. Hunting-related services were most frequently identified as the primary business focus of enterprises that had largely been established in the last 13 years (i.e., since 1990). A majority of the businesses were seasonal (65 percent) with a fairly small customer base. Most respondents reporting fewer than 150 customer days. Gross revenues varied considerably with the median gross revenue only \$14,000 and median net revenue only \$4,200. All of which suggests that most businesses in the area are in the "start-up" phase, and revenues likely represent supplemental income rather than a primary income source. Respondents' preferences for information and technical assistance were also intuitively consistent with start-up businesses. Respondents most frequently indicated information and assistance related to 'marketing/advertising' and 'web site design/Internet application' would be most beneficial. This and other basic descriptive information provided the SW REAP zone a starting point in facilitating efforts to address the needs of businesses in the tourism sector and encourage expansion and development of the sector throughout the study area.

In addition to providing a baseline description of the characteristics of businesses in the study area, another objective of the study was to identify opportunities and constraints to the development and expansion of the sector. Two issues of particular relevance to businesses in the study were identified, 1) hunting access and 2) wildlife habitat enhancement. As detailed in the body of this report, some progress in addressing hunting access issues has been made as the PLOTS program has been accelerated and a community match provision was added to the program in 2005. While one program alone may not solve the access issue, identifying the issue through personal interviews and focus group discussions offered a starting point for area leaders to address the issue. Further efforts on the part of the SW REAP zone leaders and other interested parties are ongoing.

Wildlife habitat enhancement was also identified as a critical issue for tourism businesses in the study area. Wildlife is beginning to be viewed as a possible source of revenue and, as a result, land owners may be more receptive to wildlife-friendly land management practices. However, what types of wildlife management practices may be most appropriate and effective is unknown. An initial step toward providing such information was begun in 2005. Funded by the USDA National Research Initiative and based at the Hettinger Research/Extension Center, a four-year project will address land management alternatives, undertake field experiments, administer a survey of area landowners, and conduct an extensive outreach effort. Like the expansion of the PLOTS program, one research initiative will likely not address all issues related to wildlife habitat enhancement. In addition to this research effort, the SW REAP zone will continue to explore ways with which it can impact and affect the issue.

This study does not represent an exhaustive review of issues related to the emerging tourism sector in the study area or create a complete roadmap for development and expansion of the sector in the study area. It does, however, provide insight into the basic characteristics of businesses in the tourism sector, identify some of the key constraints to expansion and development, and identify respondents' perceptions of opportunities for growth and expansion. Future research will undoubtedly continue to address these and other issues critical to the tourism industry in the SW REAP zone in Southwestern North Dakota.

References

- Bangsund, Dean A., Nancy M. Hodur, and F. Larry Leistritz. 2004. Agricultural and recreational impacts of the conservation reserve program in rural North Dakota, USA. *Journal of Environmental Management* 71: 293-303.
- Bihrlle, Craig. 2001. "CoverLocks for Conservation: New Program Promises Habitat, Access." *North Dakota Outdoors* LXIII (7): 2-5.
- Bihrlle, Craig. 2003. "PLOTS for the Future: Private Land Programs Now Offer More Options, Opportunities." *North Dakota Outdoors* LXVI (3): 22-25.
- Coon, R. C., and F. L. Leistritz. 2003. *The State of North Dakota: Economic, Demographic, Public Service, and Fiscal Conditions*. Fargo: North Dakota State University, Department of Agribusiness and Applied Economics.
- Coon, Randal C., and F. Larry Leistritz. 2004. *North Dakota Input-Output Model Data Base*. Department of Agribusiness and Applied Economics, North Dakota State University, Fargo.
- Dowling, R. K. 2003. *Ecotourism Policy and Planning*. Cambridge, MA: CABI Publishing.
- Freeman, Greg. 2004. "PLOTS Program Progress: More Acres, More Variety in 2004." *North Dakota Outdoors* LXVII (3): 16-19.
- Freeman, Greg. 2005. Opening Gates: Access to Private Land Continues to Build. *North Dakota Outdoors* LXVIII (2): 4-7.
- Gibson, L. J. 1993. "The Potential for Tourism Development in Nonmetropolitan Areas," pp. 145-164 in *Economic Adaptation: Alternatives for Nonmetropolitan Areas*, D. L. Barkley, ed. Boulder, CO: Westview Press.
- Hodur, N. M., D. A. Bangsund, and F. L. Leistritz. 2004. "Characteristics of Nature-based Tourism Enterprises in North Dakota." Agribusiness & Applied Economics Report No. 537, Department of Agribusiness and Applied Economics, North Dakota State University, Fargo.
- Honey, M. (ed.). 2002. *Ecotourism and Certification: Setting Standards in Practice*. Washington, DC: Island Press.
- Johnson, K. M, and C. L. Beale. 2002. "Nonmetro Recreation Counties: Their Identification and Rapid Growth." *Rural America* 17(4): 12-19.

- Leistriz, F. Larry. 1998. "Economic and Fiscal Impact Assessment," pp. 219-227 in *Environmental Methods Review: Retooling Impact Assessment for the New Century*, A. Porter and J. Fitipaldi, eds. Fargo: International Association for Impact Assessment and Army Environmental Policy Institute.
- Leistriz, F. Larry, Nancy M. Hodur, Dean A. Bangsund. 2002. "Local Socioeconomic Impacts of the Conservation Reserve Program." *Rural America* 17(3): 57-65.
- Leistriz, F. Larry, Nancy M. Hodur, and Kara L. Wolfe. 2004. "Developing the Outdoor Recreation-related and Nature-based Tourism Sector in Southwestern North Dakota." Agribusiness & Applied Economics Report No. 549, Department of Agribusiness and Applied Economics, North Dakota State University, Fargo.
- MacLellan, L. Rory. 1999. "An Examination of Wildlife Tourism as a Sustainable Form of Tourism Development in North West Scotland." *International Journal of Tourism Research* 5: 375-387.
- McKercher, Bob. 1998. *The Business of Nature-Based Tourism*. Melbourne (Australia): Hospitality Press.
- North Dakota State University. 2005. *Committed to Excellence – 2005 Annual Highlights*. Fargo: NDSU, North Dakota Agricultural Experiment Station, and NDSU Extension Service.
- Reeder, Richard J., and Dennis M. Brown. 2005. *Recreation, Tourism, and Rural Well-Being*. Economic Research Report No. 7. Washington, DC: USDA, Economic Research Service.
- Shaffer, Ron, Steve Deller, and Dave Marcouiller. 2004. *Community Economics: Linking Theory and Practice*. 2nd Ed., Ames, IA: Blackwell Publishing.
- U.S. Department of Agriculture. 2004. *Rural Economic Area Partnership Zones*. USDA, Washington, DC, Available at: <http://www.ezec.gov/Communit/reap.html>.
- Wilkerson, Chad. 2003. Travel and Tourism: An Overlooked Industry in the U.S. and Tenth District. *Economic Review* (Federal Reserve Bank of Kansas City) 88(3): 45 - 71.

Contact Information:

We would be happy to provide a single copy of this publication free of charge. You can address your inquiry to: Carol Jensen, Department of Agribusiness and Applied Economics, North Dakota State University, P.O. Box 5636, Fargo, ND, 58105-5636, Ph. 701-231-7441, Fax 701-231-7400, e-mail carol.jensen@ndsu.edu. This publication also is available electronically at: <http://agecon.lib.umn.edu/>.

NDSU is an equal opportunity institution.

NOTICE:

The analyses and views reported in this paper are those of the author(s). They are not necessarily endorsed by the Department of Agribusiness and Applied Economics or by North Dakota State University.

North Dakota State University is committed to the policy that all persons shall have equal access to its programs, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

Information on other titles in this series may be obtained from: Department of Agribusiness and Applied Economics, North Dakota State University, P.O. Box 5636, Fargo, ND 58105. Telephone: 701-231-7441, Fax: 701-231-7400, or e-mail: Carol.Jensen@ndsu.edu.

Copyright © 2006 by Nancy M. Hodur and F. Larry Leistritz. All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.

**Department of Agribusiness and Applied Economics
Agricultural Experiment Station
North Dakota State University
Fargo, ND 58105-5636**
