1.1 million resident and non-resident sportspersons recreated in Mississippi during 2006 and spent $1.1 billion - an increase from 1 million participants and $974 million in 2001 - according to the 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation in Mississippi. The survey is conducted nationwide every 5 years by the U.S. Fish and Wildlife Service to gather the current trends of recreational activity and associated expenditures of sportsmen and women. The survey has been conducted since 1955 and is instrumental in documenting American sportperson’s long-term interest and economic impact in wildlife-related recreation.

The report focuses on three main categories including Angling, Hunting, and Wildlife Watching which Mississippi’s has been summarized below:

**Angling and Hunting**

Fishing has always been a summer past-time for Mississipians and many of the state’s visitors. In 2006, 546 thousand individuals participated in the activity and contributed to over $240 million to Mississippi’s economy. The majority of the participant’s expenditures included equipment (50%), trip-related (i.e., transportation, food, and lodging), and other (i.e., memberships, licenses, permits, stamps, and land leasing) expenditures (44%).

Hunting, similar to angling, is a passion of many in our state as the survey indicated with 304 thousand individuals participating in the activity. This included large and small game and waterfowl. Participants spent $520 million on equipment (29%), trip-related (29%), and other (42%) expenditures.

**Wildlife Watching**

Wildlife watching is a growing hobby in the U.S. with millions of participants nationwide and 731 thousand individuals in Mississippi. The majority (606 thousand) of the participants wildlife watch around the home (< 1 mile from the home) while 246 thousand enjoy the activity away from the home (> 1 mile from the home). Wildlife watchers spent over $176 million for equipment (49%), trip-related (39%), and other (12%) expenditures in Mississippi.

What does this mean for the economy? Since the last quarter of 2008 we’ve been watching stock prices and total earnings in the Dow Jones retreat from the mid 8,000 level to now just below 7,000 thus, wiping away roughly a decade’s worth of earnings since this recession began (As reported by CNN, FOX News, and The Wall Street Journal). Even with the recent passage of the new economic stimulus bill by Congress, consumer confidence just hasn’t returned. The issues relevant to these losses are augmentative and controversial, but when we compare the markets with the happenings in mainstream daily living there are several notable trends warranting interest from business owners. Since January 2008 we’ve seen retail sales drop roughly 9.7% representing somewhere close to a loss of $95 billion in the US economy. Couple this with sluggish commodity markets and lagging sales in fuel continued on page 2
Mississippi landowner?

This survey not only reports the large number of participants for each activity but highlights the potential income from the different segments (trip related and other expenditures) of wildlife-associated recreation in the U.S. and Mississippi. Owner/operators of enterprises could utilize this information to identify potential new revenue streams for their current businesses or to establish new enterprises. To do so you can view the national and Mississippi reports online at [http://wsfrprograms.fws.gov/](http://wsfrprograms.fws.gov/) then select National Survey.

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Enterprises - More than Just Revenue

consumption reflected by a 4% decrease in miles driven by Americans during 2008, the lowest since 1980 (US Census), and it isn’t very difficult to understand that consumers just aren’t spending.

So what do stock prices, the stimulus plan, and commodity prices have to do with enterprise development? Well, everything actually. Recently during a landowner workshop in Dewitt Arkansas, I explored how natural resource enterprises, especially timber growth, wildlife enterprises, and agritourism, may offset some of the recent downturns encountered by landowners engaged in other agri-business and timber management. Basically it comes down to two important concepts. The first concept

is something financial planners call market diversity and it’s even equated to “staying power.” It is not much different than applying the concept of mutual funds to an investor’s portfolio. Mutual funds make sense to fund managers and investors because they are able to capitalize on the earnings from an array of stocks as opposed to investing in one or two stocks and hoping these selections stay strong. So the diversity you would apply to your enterprise should be exactly like a mutual fund, especially if you’re already engaged in an existing agri-business or forest management scenario.

The second concept we discussed was planning. Too often landowners are guilty of not treating there land holdings like a business. The biggest step in reaping the benefits from your land resources is generating a plan of operation. We call this a management plan but it could also be known as a business plan. This plan should help you stay on track of your future objectives but should be fluid enough to allow for changes when unforeseen obstacles present setbacks.

The best place to start with a business plan is to start identifying assets, costs, revenues, and alternatives that could be explored within your current structure. For beginners, has anyone ever asked you if they could lease your land for hunting or fishing? Has anyone asked for permission to hunt, fish, or watch your farming operation? To the left are a few tips to help you begin accumulating ideas about earning potential from wildlife related businesses.

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Revenue-Enhancing Tips for Landowners

- Identify assets such as old farm houses, wildlife species of high interest (deer, turkey, waterfowl), and special and historical facts about your property.
- Do you have water resources on your land that facilitate recreation (lake, stream, river, ponds, or even a spring)?
- Do you have historical locations nearby (Civil War monuments, happenings of significance)?
- What types of wildlife watching activities could be created on this property?
- Think about a decision model for the enterprises that are feasible and sustainable on your property.
- Do you or someone in your family have an inherent ability to entertain people?
- Begin thinking about how you would market these “commodities” to the other individuals.
- Begin small and realize the potential of these activities before making big investments or capital improvements to increase attractiveness.
- Be willing to try new things. Check out some of our examples on our web-site (see below).
- Always look for opportunities to include kids. Gardening, livestock, moving equipment around, and wildlife watching are always big draws for kids.

To better understand these and other enterprise management techniques please visit us on the web at [www.naturalresources.msstate.edu](http://www.naturalresources.msstate.edu) or [http://msucares.com/pubs/](http://msucares.com/pubs/) to view establishment and management recommendations for specific wildlife and fisheries habitat practices.
Fishing Ponds: To Fertilize or Not To Fertilize?

A fertilization program can greatly increase the fish production in fishing ponds. Adding nutrients stimulates the growth of the microscopic plants (algae) that feed the small animals that feed the fish. Fertilization can increase fish production by three to four times, resulting in more and/or bigger fish in properly managed ponds. Also, these tiny plants can shade the bottom and prevent aquatic weeds from taking over.

Carefully considering whether or not your pond would benefit from a fertilization program is important. Once fertilization is started, it should be continued each year because the total weight of fish in the pond will increase, and the fish will come to depend upon the additional food resulting from fertilization. Likewise, if you choose to fertilize, you will need to increase fish harvest to remove surplus production and prevent stunting. A “normal” pond requires removal of about 15 pounds of bass and 30-40 pounds of bream per acre per year to maintain balanced predator-prey populations. Fertilization may double or triple the amount of fish that need to be removed.

Ponds that already receive nutrients from the watershed (e.g., from cattle or from application of poultry litter) usually do not need additional nutrients. Ponds should not be fertilized if they are fed commercial feed, are muddy, weedy, have existing dense plankton blooms, have a fish population that is out of balance, or have excessive water flow. Also, fertilized ponds are green, so don’t fertilize if you don’t want a green pond.

Before fertilizing a pond, test the alkalinity of the water to see if the pond would benefit from the addition of agricultural limestone. It is also beneficial to test the hardness of the water. Hardness is a measure of the concentration of calcium and magnesium. Phosphorus is less soluble in water with a high hardness so fertilization rates must be adjusted accordingly.

If you decide to fertilize, begin applications in the spring when the water warms above 60ºF, usually early March. This timing promotes the growth of algae before rooted aquatic weeds can become established. Once a fertilization program is started, it should be maintained throughout the growing season. Fertilization is effective only during warmer temperatures and should be discontinued when water temperatures fall below 60ºF, usually in September. The required number of applications during the growing season will vary from one to 10 or more, depending upon the response of the pond to fertilization.

Choose a fertilizer high in phosphorus, as it is the most important nutrient in ponds. Fertilizer comes in three forms: liquid, powdered and granular. Granular fertilizers are in the form of small pellets and are the easiest type to find in stores. Granular fertilizers must be kept off the bottom mud until the pellets dissolve. Granules can be placed on a wooden platform set at 4” to 12” below the water surface, or the fertilizer bag can be slit open on top in an “X” and carefully sunk in shallow water.

After the initial fertilizer application, see how the pond responds to the added nutrients. The water should develop a greenish or green-brown color within a week or so. Allow at least one week, and preferably two, between applications in order to monitor the results of each addition. A good way to measure bloom density is to use a pie tin nailed to the bottom of a yardstick. Lower your pie tin or disk into the water until the disk just disappears from view, then raise the disk until the disk can just be seen again, and measure the depth. In farm ponds, a depth between 18 inches and 24 inches is ideal. If the bloom is thicker than this (depth reading less than 18”), don’t fertilize. If it is greater than 24”, apply fertilizer.

For additional information on pond fertilization, ask your county Cooperative Extension Service office for Information Sheet 229 “Fertilizing Mississippi Farm Ponds.”

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Helping landowners develop recreational businesses using sound business & habitat management strategies.