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Q&A: SBEP Economic Value Study of Sarasota Bay

Note: The following questions and answers provide more information about the economic value study recently launched by the Sarasota Bay Estuary Program (SBEP). The head researcher is Paul Hindsley, PhD, with Eckerd College in St. Petersburg. Questions can be directed to Sara Kane, the SBEP Public Affairs Manager at sara@sarasotabay.org or 941-955-8085.

What is an economic value study?

It's a study that estimates the benefits of various goods and services. SBEP is interested in obtaining a value estimate for Sarasota Bay natural resources as well as adjacent coastal and marine resources. These economic benefits, measured in dollars, can be derived from market activities, but they also occur outside of markets. For example, commercial fisheries contribute to the economic well being of society when fishermen catch and sell fish in a particular area. This would be considered a market activity and the price of the fish has an associated value. On the other hand, recreational fishing also contributes to the economic well being of individuals, but in this case, fish caught by recreational anglers are not traded in traditional business markets. For a recreational angler, the value of a fish is revealed by the amount of money they spend on the trip and the value of their time. Economic valuation studies attempt to calculate the natural resource values within and outside of markets.

Why are these types of studies important?

They help policy leaders make decisions on how to allocate budgets. Valuation estimates can help officials determine the economic benefits of protecting or restoring the natural environment. The collected information and analysis is useful for short and long term planning.

What is the purpose of the economic value study of Sarasota Bay?

The purpose is to provide specific economic values for the resources of the Sarasota Bay Estuary. The study has two important functions. First, it gives a snapshot of how these resources influence the economic well being of residents and visitors. Second, the study provides policy makers and managers information for making decisions. When policy leaders are faced with

different choices, it's helpful to know the benefits and costs of the various alternatives. If they underestimate the benefits of natural resources, they may under represent environmental protection and restoration in budget allocations. Since many of the benefits associated with natural resources are not traded in traditional markets, it is easy to overlook their importance.

What do you mean by “resources”?

Examples include habitat and wildlife. We are also interested in public access to these resources. Some of these resources are held in the public trust. This means that we all own the resources and we assign government the responsibility for conserving or preserving them for ongoing and future benefit.

What geography will be considered?

It will be the Sarasota Bay Estuary which encompasses the coastal lagoon system from Anna Maria Sound to just north of Venice Inlet. The area includes segments of both Sarasota and Manatee County. We will also look at resources adjacent to Sarasota Bay Estuary, such as its beaches and the near shore coastal waters.

What is the timeline for completing the study?

We expect to complete the first phase within a year. A second phase is yet to be funded and that would entail field survey work to learn more about how residents and visitors access and use the resources of Sarasota Bay.

Where did the idea come from to do this particular study?

The Citizen Advisory Committee (CAC) with the SBEP, a 23-person group consisting of local residents, advocated the economic value study as a way of measuring natural capital. SBEP has been focused on restoring and protecting Sarasota Bay for more than 22 years. This extended focus has provided SBEP with a depth of understanding about the relationship between habitat, wildlife, and water quality with the region's economy. Prior outbreaks of algal blooms and the Deep Water Horizon Oil Spill in 2010 have heightened awareness of the importance of Sarasota Bay on the region's economy.

What are the components of an economic value study?

The total economic value of a resource like Sarasota Bay Estuary is composed of goods and services we use directly (use value), those we benefit from indirectly (indirect use value), and those we value even though we don't use them (non-use value). When you go on a recreational trip or catch a fish, you are directly using a resource. On the other hand, important ecosystem processes may indirectly influence you as well. For example, the role of sea grass and mangrove habitat as a nursery for fisheries is well documented. We benefit indirectly from the nursery function of this habitat and we benefit directly from the fish caught. Many people also value some resources even though they don't use them. For example, people may never see some types of endangered species, but they value the fact that these species exist. This is sometimes referred to as existence values.

Have similar studies been done of other estuaries in Florida?

A good comparative study would be one completed in 2007 focused on Indian River Lagoon, another national estuary program in Florida. That study determined the annual value of Indian River Lagoon to be 3.75 billion dollars with 15,000 jobs attributed to the existence of the lagoon.

What is involved with the analysis and how do you collect and organize information?

The first phase of our study will focus on use values for recreational users and residential home owners. In the case of recreational users, we will take advantage of the data available on recreation demand. Economists can estimate a value for recreational trips by observing the explicit (such as gas & wear and tear on a car) and implicit (value of time) costs associated with traveling to a recreation site. This information reveals how much someone is willing to pay for a recreational opportunity. We will use this information to estimate how people value a wide variety of recreational opportunities in and around the Sarasota Bay Estuary. Second, economists have developed models of residential home markets. They have learned that they gain estimates for the value of many important home characteristics using information from sales transactions. The value of a home is a function of structural characteristics (square footage, bathrooms, etc), neighborhood characteristics (crime rates, schools, etc), and environmental characteristics (water views, proximity to natural areas, etc). We can model the influence of these different characteristics to see if they influence home buyers' purchasing decisions.

The Sarasota Bay Estuary Program is dedicated to restoring the area's greatest natural asset—Sarasota Bay. Its unique program strives to improve water quality, increase habitat and enhance the natural resources of the area for use and enjoyment by the public. Sarasota Bay is one of 28 estuaries in the United States that have been named by the U.S. Congress as an "estuary of national significance." Partners include Sarasota County, Manatee County, City of Sarasota, City of Bradenton, Town of Longboat Key, Florida Department of Environmental Protection, Southwest Florida Water Management District, and the U.S. Environmental Protection Agency.