

NATIONAL CENTERS FOR COASTAL OCEAN SCIENCE

Science To Sustain Thriving Coastal Communities and Economies

Social Science to Support Vibrant Coastal Communities: Ecosystem Services Valuation

The National Centers for Coastal Ocean Science (NCCOS) conduct research and provide information to help sustain thriving coastal communities and economies. Coastal communities use NCCOS tools, maps, and products to sustainably manage their natural resources and protected areas, and to better understand and respond to coastal hazards, such as flooding, storms, harmful algal blooms, and contaminated coastal waters.

The NCCOS social science team is made up of sociologists, economists, geographers, and coastal specialists who focus their research on the connections between people and the environment. Ecosystem services valuation is one of the ways in which we study these connections.

Why Value Ecosystem Services?

Ecosystem services are the goods and services from ecological systems that benefit people. These services include protection from coastal storms, habitat for fish and shellfish, and outdoor recreational opportunities. Assigning a

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value—whether economic, social, or cultural—to the services provided by ecosystems allows managers to compare management options, such as whether to develop or conserve a natural area. It also makes communicating the value of ecosystems to policy makers and the general public easier. NCCOS identifies, measures, and estimates the value of ecosystem services for use by coastal communities, planners, managers, and regulators.



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National Ocean Service

<http://coastalscience.noaa.gov>

NCCOS Approaches

Identify Baseline Values

NCCOS conducts research to collect baseline valuation data to help resource managers understand the values society places on ecosystem services. People and communities value special places and ecosystem services, products, and functions for a variety of reasons. For instance, a commercial fisherman may value a specific cove because it supplies ample fish to sell at market. Another person might value that same cove because it serves as a special gathering place for family. In addition to location, people value ecosystem service functions, such as water filtration, as well as products or resources, such as fish or beaches. Through a variety of methods, NCCOS researchers identify and estimate baseline values, and assign to them social, cultural, or monetary worth. Once baseline values are established, changes in values can be tracked over time.

Characterize Sociocultural Attachments

People, both individually and as groups, develop special bonds to physical places, such as neighborhoods, beaches, or coral reefs. These attachments result from our knowledge, experiences, heritage, and socialization, or a combination of these. The nature and strength of these place-based attachments are indicative of people's values for ecosystems, along with the services that they provide. NCCOS conducts research to characterize place-based attachments and non-economic values for marine and coastal resources and special places. This is useful because the sociocultural values can be different than monetary values. Awareness of place-based attachments and non-economic values can help decision-makers better manage these resources for society.

Estimate Change to Values

The values and attachments that people attribute to natural resources and special places are often related to the condition or status of those resources and locations. It is possible, then, for people's values and attachments to shift as the condition of a resource or special place changes. For example, if a waterfront park becomes unkempt and littered with debris, some values associated with that location may decrease. Researchers can analyze data to estimate how changes to resource condition may influence associated changes in people's values and attachment.



For More Information

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