

## Economic Valuation Tools and Their Application to Ecosystem Services

Many of the ecosystem services that people value are not normally bought and sold; yet, this does not mean they have no measurable economic value. Economists have developed a set of approaches and tools for valuing the full range of both market and “non-market” ecosystem goods and services. These approaches and tools offer a way to understand and evaluate the many tradeoffs involved in managing natural resources and environmental risks, to answer questions such as: How can we allocate scarce resources to provide the greatest benefits to society?; or How much additional risk are people willing to accept in exchange for other valued goods and services? While value is inherently subjective, economic valuation methods aim to quantify it by looking at the tradeoffs people are willing to make, which can reveal their values for different states of the world.

An overview of economic valuation tools for ecosystem services, focusing on non-market valuation, will be presented, along with some basic economic concepts that are important to economic valuation. These concepts include: the difference between economic impacts and social benefits; marginal versus total value; and dollar values versus non-monetary values and when each is most appropriate. While economic valuation tools can be tremendously useful, there are often practical limitations to their application, and they provide only one form of information to be used in conjunction with other tools and approaches to inform decisions. Thus, some caveats will be presented, and economic valuation approaches will be discussed in the context of the frameworks where they are typically applied.