

Only the text in the *green italics* represents the consensus views of the SAB Committee on Valuing the Protection of Ecological Systems and Services and has been approved by the chartered SAB. All other text was provided by individual committee members and is offered to extend and elaborate the very brief descriptions provided in chapter 4 of the SAB Report, *Valuing the Protection of Ecological Systems and Service* and to encourage further deliberation within EPA and the broader scientific community about how to meet the need for an integrated and expanded approach for valuing the protection of ecological systems and services.

## **Civic Valuation**

Excerpt from draft SAB Committee report, Valuing the Protection of Ecological Systems and Services: *Civic valuation seeks to measure the values that people place on changes in ecosystems or ecosystem services when explicitly considering or acting in their role as citizens. These valuation methods often seek to value changes that would benefit or harm the community at large. They purposefully seek to assess the full value that groups attach to any increase in community wellbeing attributable to changes in the relevant ecosystems and services.*

*Civic valuation, like economic valuation, can elicit information about values either through revealed behavior or through stated valuations. One source of information based on revealed behavior is votes on public referenda and initiatives involving the provision of environmental goods and services (e.g., purchases of open space). Another source is community decisions to accept compensation for permitting environmental damage (e.g., by hosting noxious facilities). Where revealed values are difficult or impossible to obtain, citizen valuation juries or other representative groups can be charged with determining the value they would place on changes in particular ecological systems or services when acting on behalf of, or as a representative of, the citizens of the relevant community.*

Overview. Valuation of ecological systems can also involve expressions of group or public value, rather than elicitation of the values of individuals or biophysical rankings according to a previously agreed-upon scale. Group or public expressions of ecological value have attracted attention for at least two reasons. First, some experts believe that group discussions and deliberations can help people form clearer understanding of values. Second, a number of experts believe that group expressions of the “public good” in general, and of ecological value in particular, may be distinct from the aggregation of individuals’ reports of their private welfare because they explicitly reflect public regardness.

Although many reports briefly discuss the potential role of deliberative processes in helping to develop more informed valuation (National Research Council 2004, Millennium Ecosystem Assessment Board 2003, Science Advisory Board 2000), the reports do not evaluate or recommend any specific method or approach. There are parallels between group and public expressions of value for ecological valuation and the deliberative-analytic process recommended for risk characterization by the National Research Council (1996). The National Research

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Council report, however, did not address in any detail how deliberative approaches might be implemented or assessed or how they might be transferred to ecological valuation.

Traditional economic valuation methods attempt to measure and aggregate the values that individuals place on changes in ecological systems and services based on their personal preferences as consumers of those systems and services. An alternative approach is to try to measure the values that groups of individuals place on changes in such systems and services explicitly in their role as citizens – social/civic valuation. This approach measures the monetary value that groups place on changes in the systems and services when asked to evaluate how much the public as a whole should pay for increases in such systems and services (public willingness to pay) or should accept in compensation for reductions in the systems and services (public willingness to accept). The value measurement purposefully seeks to assess the full “public regardedness” value, if any, that the group attaches to any increase in community well-being attributable to changes in the relevant systems and services.

Social/civic values, like values based on personal preferences, can be measured either through revealed behavior or through stated valuations. One principal source of revealed values for changes in ecological systems and services are votes on public referenda and initiatives involving environmental decisions. Other public decisions also may provide measures of social/civic values, including official community decisions to accept compensation for permitting environmental damage and jury awards in cases involving damage to natural resources. Because all research on sources of revealed public value have focused on referenda and initiatives, however, this section discusses only the use of referenda and initiatives as a source of revealed value. Other public decisions raise unique issues as sources of revealed value. The committee does not recommend that EPA currently pursue their development. Where revealed values are difficult or impossible to obtain from referenda or initiatives, social/civic values may be measured by asking “citizen valuation juries” or other representative groups the value that they, as citizens, place on changes in particular ecological systems or services.

This section discusses several approaches to forming, eliciting and considering group or public values. Some of the methods are designed to help elicit clearer understandings of value, while others focus on identifying group expressions of public valuation. The committee recommends each method be considered for its merits at different stages in the ecological valuation process and in difference decision-contexts relevant to EPA.