
QUICK READS

NATURAL CAPITAL VALUATION

SYNOPSIS

Environmental valuation provides a means to demonstrate the value, or importance, that people place on natural capital and environmental goods. Most such goods are public goods and non-market in nature, i.e. they are accessible for consumption (or enjoyment) by everybody and, by not being traded in a marketplace, have no market price. An absence of values tends to result in over-use or mismanagement of resources.

In principle, the methodology of valuation permits us to demonstrate the value that people have for natural capital in relation to other factors that contribute to their quality of life. This should permit the true value of natural capital to be appreciated by those who are responsible for policy or management.

KEY POINTS

The main methods by which to estimate monetary values for non-market environmental goods are:

- *Cost-based*. Includes replacement costs, damage costs avoided and production function methods that indirectly link an environmental good to a market good, e.g. where an ecosystem service is an input to the output of a marketable good such as timber);
- *Revealed preference*. Includes hedonic pricing (indirectly capturing the environmental good in property prices, etc), travel cost (indirectly linking the benefits provided through access to the environment with behaviour, including travel or journey time cost);
- *Stated preference*. Includes contingent valuation (directly asking people how much they would be willing to pay for a change (or to avoid a change) in an environmental good, and choice experiments (asking people to compare bundles of characteristics or attributes of environmental goods, where one characteristic is monetary, to get at the value of this characteristic).

CONSENSUS

- All of these values are monetary and relate to the utility that individuals attach to the environment, including instrumental values associated with a particular purpose (e.g. kayaking on a lake), tangible outputs (e.g. fish from a lake) or individual use, a definition that includes many provisioning ecosystem services.
- However, humans have other motivations for valuing the environment, such as ethics (e.g. doing what is right) and aesthetics (e.g. living well).
- It is now accepted that there are a diversity of value types, including shared values that correspond to values that people have as a community, a perspective that is particularly relevant to environmental goods for which there is shared use or motivations (e.g. recreation destinations, landscapes, etc).
- Deliberative (group discussions) and narrative methods can be used to explore the relative role of these different values. Multi-criteria



analysis is one means to compare values where some form of quantification is possible.

POINTS OF DIVERGENCE

- Values are anthropocentric in that, for the most part, we care about the value we attach to the environment and not intrinsic value.
- Many of these values cannot be quantified in monetary terms and are incommensurate with utility-based values. At the extremes, they cannot be used to inform trade-offs or to support the substitution of natural capital or compensation for its loss. A good example of this is relational values: the values that people realise through their relationship with the environment, particularly attachment to a certain place.
- An ecocentric perspective can reject attempts to place monetary values on nature. Environmental economists contend that monetary valuation rather reflects human preferences and that it is a pragmatic means to demonstrate the value of the natural environment.
- Some commentators criticise valuation, especially monetary valuation, for promoting the commodification of nature such that it comes to be seen as simply a service for the benefit of human beings and overlooks our moral responsibility to protect nature or to influence behaviour without monetary incentives.

REFERENCES

- [IPBES Preliminary Guide on Diverse Conceptualization of Multiple Values of Nature and its Benefits](#)
- [National Economic and Social Council \(NESC\): Craig Bullock \(2017\)](#)

[Nature's values: From intrinsic to instrumental. Paper No. 10; Patrick Bresnihan \(2017\) Valuing Nature – Perspectives and Issues. Paper No. 11](#)

- [EU Aquamoney \(Bouwer and Panagiotis, 2007\). Lists merit of different economic valuation approaches](#)

CASE STUDIES

- [UK National Ecosystem Assessment](#)
- [ESManage \(Ireland\): EPA funded project on values of freshwater ecosystems](#)
- [Ecorisk \(Ireland\): EPA funded project on environmental values for environmental liability assessment](#)

BIG QUESTIONS

- How can we ensure that policy and decision makers respect the need to protect the natural environment given competing incentives such as economic growth, profit, employment and regional/rural development?
- What means do we have to encourage these same policy and decision makers to take account of non-monetary, non-utility based values for the environment?
- What methods can we develop to combine utility based values and other types of value such as shared and relational values that cannot generally be monetised?