



LECTURE OBJECTIVES

The aim of this lecture is to describe the concept of Total Economic Value (TEV) and outline its main components. An appreciation of the importance of TEV and what it represents will be crucial for understanding the subsequent lectures on environmental valuation techniques.

2006 BOOK IN FRENCH BY GONZAGUE PILLET | ENGLISH VERSION BY KAREN MAYOR

Putting a price on the environment has always been problematic. Until a few years ago there were only two values the environment could take: nil or infinite. Either environmental resources were exploited and entered the economy free of charge, or they were protected as heritage sites and were consequently considered priceless. Trying to evaluate environmental values from an economic perspective was then the equivalent of trying to value something priceless. A number of economic techniques have been developed to try and achieve this goal and they will be further examined in Lecture 7. First, however, the concept of total economic value must be explained.

1 | TOTAL ECONOMIC VALUE: BACKGROUND AND COMPONENTS

In order to determine the value of the environment, the unpaid prices of the environment must first be revealed. Revealing these prices suggests that they can and should be paid for. Total economic value (TEV) suggests the existence of an extended economic value for the goods and services provided by the environment. This environment-economic extension challenges narrower economic values based on market prices only.

There are three main categories of values used to determine the TEV:

- use values (direct and indirect)
- option values (for optional future uses)
- existence values (intrinsic values, surrogate values and legacy values)

Use values represent the value received from the goods and services provided by the environment (for instance drinking water). **Option values** relate to the opportunity given to an individual to acquire (or not) the environmental resource in the future. **Existence values** are the value placed on preserving the environmental resource as it is. It can have several motivations. The **legacy value** is one of these and represents the value an individual gives to preserving a resource for the benefit of future generations. Finally, **intrinsic values** are the value given by individuals to the ecological characteristics of the environment. All of these values can be direct or indirect and are summarized in figure 1 below.

Each value has a varying level of concreteness (“tangibility”). In other words, the values on the left hand side of the diagram are more easily assessed and allocating monetary values to these options is quite straightforward. The further right you go on the diagram the more difficult it is to assess the importance of the values.

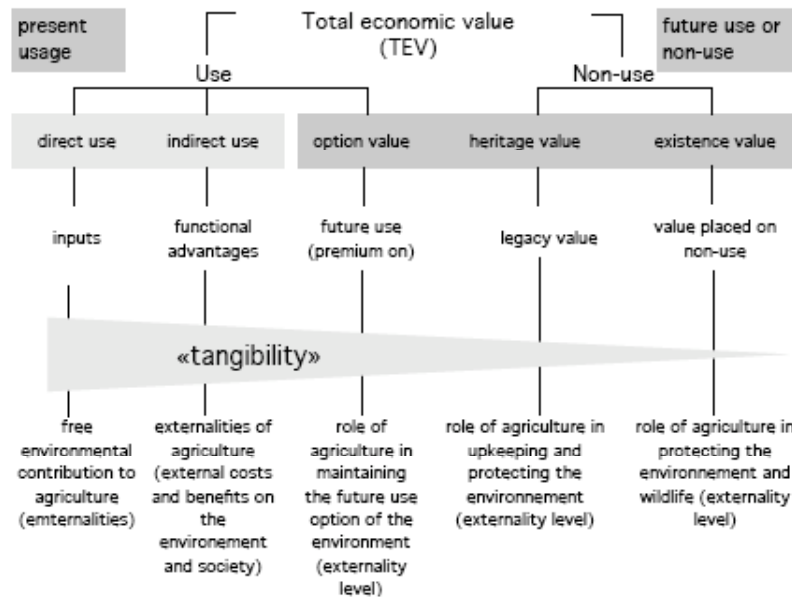


Figure 1 – Total Economic Value

2 | REVEALING INDIVIDUALS' PREFERENCES: AN INTRODUCTION

As none of these values are explicit how can we find a monetary value for them? Individuals' preferences can be revealed using a variety of economic methods. These will be further developed in the next lecture but we will first briefly outline the general idea behind environmental valuation techniques. Surveys are used to ask people to “reveal” their **willingness to pay** for a certain quality of air or water or for the preservation of a unique ecosystem. They can also be asked their **willingness to accept** compensation for a fall in the quality of a resource or the loss of a particular ecosystem. The assumption is that individuals will behave the same way when dealing with environmental goods and services than with normal market goods. Consequently, the values “revealed” by these surveys represent the prices these resources would take if a market for them existed.

ADDITIONAL REFERENCES

BARDE J.-PH. and PEARCE D. (1996), *Valuing the environment*, London, Earthscan.

PEARCE D. and TURNER K. (1991), *Economics of Natural Resources and the Environment*, London, Wheatleaf.