

One of the greatest problems that global society faces in the 21st century is to accurately determine the value of the work contributions that the environment makes to support society. This work can be valued by economic methods, both market and nonmarket, as well as by accounting methods that determine the inputs required for the production of a good or service. All commonly used economic valuation methods are subjective and attempt to capture the value that people assign to ecosystem products and services based on their preferences; whereas, emergy methods are objective and take an accounting perspective that determines value based on the sum of the energy, material, and information inputs required for the production of a good or service without double-counting. Non-economic value as measured by emergy exceeds the market value of the same product or service in a predictable manner with the difference between the two narrowing for more highly processed products and services. When nonmarket estimates of value are added to market value to get the total economic value of an ecosystem's contributions to society, in theory, the values obtained can be either more or less than those found from an emergy evaluation of the same system. Values of environmental goods and services determined through emergy evaluations can promote better decisionmaking by providing an objective check on the subjective values assigned by economic methods using human perceptions of value, which are invariably based on incomplete information.