

Student Name:

Tutor Name:

Course Name:

22 September 2015

Ecological Economics

1. Why is ecological economics considered to be a transdiscipline? How is this different than multidisciplinary or interdisciplinary approaches to problem solving.

Ecological economics is considered a transdiscipline because of its multidisciplinary approach towards the concepts of human economies and how they have interacted and evolved together with ecosystems that are found naturally. The difference between a trans discipline and multidisciplinary approaches is that the former focuses on a horizontal cross-sectional relationship between variables while the latter focuses on a vertical relationship between variables.

2. Explain the primary differences in the preanalytic vision of ecological economics compared to neoclassical economics. How do these differences relate to the three strategies for integrating ecology and economics?

The Prenalytic vision seeks to draw the relationship between the economy and the ecological ecosystem as a whole, while the traditional neoclassical theories of economies are fundamentally concerned with demand and supply forces in economic markets thereby enabling the former to integrate ecology with economics.

3. Describe how the goals of sustainable scale and just distribution are interrelated. When would scale be considered “sustainable” or distribution be considered “just?”

Sustainable scale distribution is achieved in instances where companies that seek to maximize profits push these costs towards the economic environment around them, thereby achieving an economically just position.

4. Explain how the laws of thermodynamics are relevant to the study of economic systems.

According to the first law of thermodynamics states that energy can neither be destroyed or created through any chemical process, while the second law states that the entropy of a system which is isolated always increased. These principles are consistent with the principles of ecological economics.

5. When does growth of the economy become “uneconomic”? Use an example to illustrate.

The growth of the economic becomes uneconomic instances whereby it results in more adverse effects than positive attributes. A good example is rising consumer prices associated with inflation which is a direct consequence of a growing economy.

6. What is meant by the “practical dualism” that guides ecological economics?

Practical dualism refers to the parallel existences of two or more economic systems with the same geographic jurisdiction. For instance, capitalism and socialism can jointly coexist within the same economic realm.

7. Stock-flow resources are the structure of the earth system, while fund-service resources include the functions. Explain this distinction, and how structure relates to function.

Stock flow resources refer to resources that are finite, non-renewable and are expressed in absolute terms for example petroleum. Flow resources on the other hand refer to resources that are replaceable, can be renewed and are expressed in rates rather than absolute terms.

8. Consider the natural resource of water. Is water a fund-service or stock-flow resource? In what context? Describe the physical and economic characteristics of water.

Water can be characterized as a fund-service resource because it is renewable through rain and can be replaced. Physically, water is semi-tangible in nature and takes on a fluid form.

Economically, water can be described as the lifeline that drives all economic systems in any part of the world since time immemorial.

9. Explain the concept of energy return on investment (EROI). How does this concept relate to fossil fuel resources and economic growth?

Energy return on investment refers to the financial and economic metric which is used to evaluate the expected economic benefits that will be generated from the extraction and consumption of a given source of energy. In terms of fossil fuels and economic growth, the higher the EROI, the higher the corresponding economic growth that a country is expected to experience in a given financial period.

10. Describe the difference between risk, uncertainty, and ignorance when managing a biotic resource. Use an example to illustrate.

In terms of the management of a biotic resource, risk refers to the threat of eliminating the life component of the resources, uncertainty refers to the lack of clarity as to the continued existence of the resource in its lively form, while ignorance refers to the management of the resource in a manner that is devoid of the underlying threats to its existence if handled in a particular way. A good example of risk, uncertainty and management of a biotic resource is aquatic life.