

Ecological Economics: Factual Challenges

Economics · Answer Key · 20 Questions

1. Which economic valuation method attempts to estimate the value of ecosystem services by observing how much people spend to travel to experience them?

- A) Contingent Valuation Method
- B) Choice Experiment Method
- C) Travel Cost Method**
- D) Hedonic Pricing Method

2. The concept of 'ecosystem services' was popularized in economics by which landmark report?

- A) The Limits to Growth
- B) Our Common Future (Brundtland Report)
- C) Millennium Ecosystem Assessment**
- D) Silent Spring

3. What is the primary economic challenge associated with managing fisheries that exhibit a 'tragedy of the commons' scenario?

- A) Over-regulation leading to reduced catch limits
- B) Difficulty in excluding new fishers from the resource**
- C) High costs of sustainable fishing gear
- D) Limited international cooperation on fishing quotas

4. The economic principle of 'opportunity cost' is most directly illustrated by the decision to convert old-growth forests into:

- A) National parks for ecotourism
- B) Sustainable timber plantations
- C) Protected wildlife reserves
- D) Agricultural land for crop production**

5. Which economic indicator is often used to measure the financial burden of air pollution on a population, including healthcare costs and lost productivity?

- A) Gross Domestic Product (GDP)
- B) Consumer Price Index (CPI)
- C) Externalities**
- D) Human Development Index (HDI)

6. The economic concept of 'resilience' in ecological systems refers to their ability to:

- A) Grow indefinitely without resource constraints
- B) Withstand and recover from disturbances**
- C) Maximize short-term resource extraction
- D) Operate at peak efficiency for a single species

7. What is the main economic justification for protecting endangered species, particularly in the context of biodiversity?

- A) Preventing the extinction of species with potential medicinal compounds**
- B) Maintaining the aesthetic value of natural landscapes
- C) Ensuring the continued availability of species for pet trade
- D) Upholding moral obligations to all living beings

8. The economic value of pollination services provided by insects to agriculture is estimated to be in the billions of dollars annually worldwide. This is an example of:

- A) A negative externality
- B) A positive externality**
- C) A public good
- D) A private good

9. The economic concept of 'carrying capacity' in ecological terms is analogous to which economic idea when considering resource limits?

- A) Diminishing marginal returns**
- B) Economies of scale
- C) Total factor productivity
- D) Comparative advantage

10. Which international economic agreement aims to conserve biological diversity and promote the sustainable use of its components?

- A) Paris Agreement
- B) Kyoto Protocol
- C) Convention on Biological Diversity (CBD)**
- D) Montreal Protocol

11. The economic principle of 'intergenerational equity' suggests that the current generation should:

- A) Exploit natural resources at the fastest possible rate
- B) Leave future generations with at least the same level of natural capital as they inherited**
- C) Prioritize short-term economic gains over long-term environmental sustainability
- D) Transfer all natural resources to a global trust fund

12. What is the economic term for the uncontrolled exploitation of a shared natural resource, leading to its depletion?

A) Market failure

B) Tragedy of the Commons

C) Information asymmetry

D) Moral hazard

13. The economic valuation of 'non-use values' for environmental goods (e.g., the existence of a rainforest) typically involves methods like:

A) Market price analysis

B) Travel cost analysis

C) Contingent valuation

D) Hedonic pricing

14. Which type of economic instrument is most commonly used to internalize the external costs of pollution, such as carbon taxes?

A) Command and control regulations

B) Voluntary agreements

C) Market-based instruments

D) Information disclosure requirements

15. The economic concept of 'biodiversity' is crucial for ecosystem services because it enhances:

A) Economic inequality

B) Ecosystem stability and productivity

C) Resource scarcity

D) Short-term profit maximization

16. The economic value of wetlands often includes flood control services. This type of benefit is an example of:

A) A direct use value

B) An indirect use value

C) An option value

D) An existence value

17. Which economic principle best explains why saving coral reefs for future generations might involve sacrificing some immediate economic development opportunities?

A) The law of demand

B) The law of supply

C) The principle of time preference

D) The concept of elasticity

18. The economic valuation of a forest's role in carbon sequestration is a key component in assessing:

- A) Industrial output
- B) Climate change mitigation benefits**
- C) Agricultural yields
- D) Tourism revenue

19. What economic challenge arises from the fact that the benefits of conservation (e.g., a pristine ecosystem) are often widely distributed, while the costs of preservation (e.g., lost development potential) are concentrated?

- A) Information asymmetry
- B) Adverse selection
- C) The free-rider problem**
- D) Externalities

20. The economic concept of 'natural capital' refers to:

- A) The total value of manufactured goods
- B) The stock of natural resources and ecosystem services from which economic benefits flow**
- C) The accumulated wealth of a nation
- D) The financial assets of corporations