

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Unearth the Impact: 10th Grade Human-Environment Analysis

Examine complex geopolitical tensions, resource scarcity, and anthropogenic landscape changes through high-level case studies and systems thinking.

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**1. The 'Aral Sea Disaster' is a premier example of how state-mandated modifications can lead to unintended feedback loops. What was the primary driver of this environmental collapse?**

- A. Diversion of the Amu Darya and Syr Darya rivers for cotton monoculture.
- B. Tectonic shifts occurring due to deep-well hydraulic fracturing.
- C. Invasive species introduction disrupting the local lacustrine ecosystem.
- D. Thermal pollution from localized nuclear power plant runoff.

**2. The 'Resource Curse' (or Paradox of Plenty) suggests that countries with an abundance of natural resources often experience less economic growth and worse development outcomes than countries with fewer natural resources.**

- A. True
- B. False

**3. In the context of High-Altitude Adaptation, how have populations in the Tibetan Plateau biologically adapted over generations compared to Andean populations?**

- A. By increasing the total volume of their lung capacity by 40%.
- B. Through a genetic mutation that allows for more efficient oxygen use without increasing red blood cell count.
- C. By developing a diet exclusively consisting of high-caloric lichen species.
- D. Through the construction of pressurized subterranean living quarters.

**4. The concept of \_\_\_\_\_ describe the distinct atmosphere of a city that is significantly warmer than its surrounding rural areas due to human activities and modification of the land surface.**

- A. Atmospheric Inversion Layers
- B. Albedo Modification Zones
- C. Urban Heat Islands
- D. Anthropogenic Heat Sinks

**5. Cultural Ecology is the study of how human societies adapt to their physical environment through both biological and cultural processes.**

- A. True
- B. False

**6. Which of the following best evaluates the geopolitical consequence of 'Transboundary Water Conflict' in the Nile River Basin regarding the Grand Ethiopian Renaissance Dam (GERD)?**

- A. It has led to a total cessation of farming in the Nile Delta.

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- B. It has forced Sudan to relocate its entire capital city to higher ground.
- C. It creates tension over downstream water security for Egypt vs. upstream energy needs for Ethiopia.
- D. It has resulted in the Mediterranean Sea flowing backward into the Nile.

**7. The practice of \_\_\_\_\_ involves creating stepped plots on mountain slopes to reduce soil erosion and surface runoff, a modification famously utilized by the Inca Empire.**

- A. Contour Plowing
- B. Terrace Farming
- C. Hydroponic Cultivation
- D. Slash-and-Burn Agriculture

**8. Venkatesh's 'Theory of Centrality' aside, how does 'Environmental Determinism' differ from 'Possibilism' in geographic thought?**

- A. Determinism claims the environment sets limits; Possibilism claims the environment dictates culture.
- B. Determinism suggests physical geography dictates human success; Possibilism suggests culture and technology allow humans to overcome environment.
- C. Possibilism focuses only on islands; Determinism focuses only on continents.
- D. There is no functional difference between the two theories in modern academia.

**9. A prime example of human dependence and subsequent adaptation is the 'Great Smog of London' (1952), which eventually forced the passage of the \_\_\_\_\_ to regulate air modification.**

- A. Kyoto Protocol
- B. Clean Air Act of 1956
- C. Montreal Protocol
- D. Paris Agreement

**10. Transhumance is a form of modification where humans permanently level forests to create grazing land for livestock.**

- A. True
- B. False