

Name: _____ Date: _____

The Geopolitics of Survival: A 9th Grade Human-Environment Analysis

Synthesize complex scenarios involving transboundary water rights, anthropogenic biomes, and the socio-economic repercussions of altering planetary systems.

1. The construction of the Great Green Wall across the Sahel region primarily represents which specific mode of human-environment interaction aimed at reversing desertification?

- A. Passive adaptation to shifting climate zones
- B. Large-scale ecological modification to restore ecosystem services
- C. Economic dependence on non-renewable timber resources
- D. Unintended consequences of urbanization in arid climates

2. The 'Resource Curse' (Paradox of Plenty) suggests that nations with abundant natural resources often experience less economic growth than nations with fewer resources.

- A. True
- B. False

3. The use of ____ in Southeast Asian agriculture allows farmers to modify steep mountainous terrain to reduce soil erosion and manage water runoff.

- A. Hydroponic vertical farming
- B. Slash-and-burn cultivation
- C. Terrace farming
- D. Center-pivot irrigation

4. Analyzing the Kazakh side of the Aral Sea, what was the primary driver for the environmental collapse that led to the 'Dust Bowl' effect in that region?

- A. Over-extraction of groundwater for urban consumption
- B. Introduction of invasive species that destroyed local kelp forests
- C. Diverting tributary rivers for large-scale cotton irrigation
- D. Tectonic shifts that caused the sea bed to naturally fracture

5. Building earthquake-resistant 'base isolation' foundations in California is an example of environmental modification rather than adaptation.

- A. True
- B. False

6. The concept of ____ describes the total amount of land and water area required to provide the resources an individual or nation consumes and to absorb its waste.

- A. Carbon Sequestration
- B. Ecological Footprint
- C. Carrying Capacity

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D. Environmental Determinism

7. Which scenario best illustrates the 'consequence' aspect of interaction specifically regarding the Urban Heat Island (UHI) effect?

- A. Cities being built near rivers to facilitate trade and transport
- B. Using air conditioning to lower internal building temperatures
- C. Installing solar panels to decrease reliance on fossil fuels
- D. Concrete surfaces absorbing radiation and raising city temperatures

8. In the Maldives, the construction of the 'Great Wall of Male' and the creation of the artificial island Hulhumalé are responses to the threat of ____.

- A. Desertification
- B. Rising sea levels
- C. Volcanic eruptions
- D. Deforestation

9. The use of 'Qanats' (underground aqueducts) in ancient Persia is an example of a sustainable modification to utilize groundwater in arid climates.

- A. True
- B. False

10. When evaluating the impact of 'Cloud Seeding' in regions like the UAE, which category of interaction is primarily being utilized to address water scarcity?

- A. Direct environmental modification of atmospheric conditions
- B. Cultural adaptation to seasonal rainfall patterns
- C. Passive dependence on existing weather cycles
- D. Economic consequence of desalination technology