

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

## Answer Key: Sultry Sands and Shifting Soils: 11th Grade Geography Quiz

Evaluate how anthropogenic changes like the Great Green Wall and Aral Sea desiccation illustrate the delicate tug-of-war between societal needs and biomes.

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**1. The 'Great Green Wall' initiative across the Sahel represents which specific category of human-environment interaction?**

**Answer:** C) Intentional modification to combat desertification

The Great Green Wall is a planned modification of the landscape using reforestation to halt the expansion of the Sahara Desert.

**2. The desiccation of the Aral Sea is an example of an unintended negative consequence resulting from large-scale irrigation modifications.**

**Answer:** A) True

Diverting rivers for cotton irrigation in the Soviet era led to the catastrophic shrinking of the Aral Sea, a classic example of human modification gone wrong.

**3. In high-altitude regions like the Andes, the practice of \_\_\_\_\_ allows farmers to adapt to varied microclimates at different elevations.**

**Answer:** A) Vertical Archipelago

The 'vertical archipelago' or vertical trade model is a human adaptation where communities access different resources across tiered ecological zones.

**4. Which concept best explains why Singapore has invested heavily in NEWater (recycled water) and desalination plants?**

**Answer:** B) Geopolitical adaptation to limited natural freshwater access

Singapore adapts to its lack of natural water sources through high-tech modifications to secure 'water independence' from neighboring nations.

**5. The practice of 'Qanat' systems in ancient Persia is a historical example of \_\_\_\_\_ to arid environments by transporting groundwater via tunnels.**

**Answer:** B) Hydrological Adaptation

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Qanats are a form of adaptation that utilizes gravity and subterranean tunnels to provide water in dry climates without excessive evaporation.

**6. The 'Resource Curse' suggests that countries with high dependence on extractable natural resources always experience faster equitable economic growth.**

**Answer:** B) False

The 'Resource Curse' (or Dutch Disease) often leads to economic instability and corruption, demonstrating the complex consequences of resource dependency.

**7. How did the introduction of Kudzu in the Southern United States illustrate a negative consequence of biological modification?**

**Answer:** B) It became an invasive species that outcompeted native flora

Kudzu was introduced for erosion control (adaptation/modification) but became a 'vine that ate the south,' showing how human intervention can disrupt ecological balance.

**8. The modification of the Florida Everglades through drainage systems was primarily intended to facilitate \_\_\_\_\_ and agriculture.**

**Answer:** B) Urban development

Humans modified the Everglades by draining them to create habitable land for cities like Miami and for commercial farming.

**9. The use of 'Terrace Farming' by the Inca is an example of modifying the physical environment to increase agricultural viability in mountainous terrain.**

**Answer:** A) True

Terracing modifies the steep gradients of mountains into flat steps, preventing erosion and allowing for crop cultivation where it was previously impossible.

**10. Which of the following describes a 'Positive Feedback Loop' in the context of Arctic human-environment interaction?**

**Answer:** B) Melting permafrost releasing methane, further accelerating warming

A positive feedback loop occurs when a change in the environment triggers a process that intensifies that change, such as permafrost melt driving further climate change.