

01 – Basic Concepts →

Key Issue #4

Why are some human actions not sustainable?

Learning Outcomes →

- 1.4.1: Describe the three pillars of sustainability.
- 1.4.2: Describe the three abiotic physical systems.
- 1.4.3: Explain how the biosphere interacts with Earth's abiotic systems.
- 1.4.4: Compare ecosystems in the Netherlands and southern Louisiana.

Why Are Some Human Actions Not Sustainable? →

- **Sustainability and Resources**
 - Geographers observe two major misuses of resources:
 - Humans deplete nonrenewable resources.
 - Humans destroyed otherwise renewable resources through pollution of air, water, and soil.
 - **Three Pillars of Sustainability**
 1. Environment Pillar
 - Sustainable development can only exist if conservation is embraced more fully than wasting resources or preservation of all resources.

Why Are Some Human Actions Not Sustainable? →

- Sustainability and Resources
 - Three Pillars of Sustainability
 - 2. Economy Pillar
 - Efforts to set prices of commodities and goods based not only on supply and demand but also on costs to the environment.
 - 3. Society Pillar
 - Modifying the wants of cultures in regards to shelter, food, and clothing to objects that are sustainable

Why Are Some Human Actions Not Sustainable? →

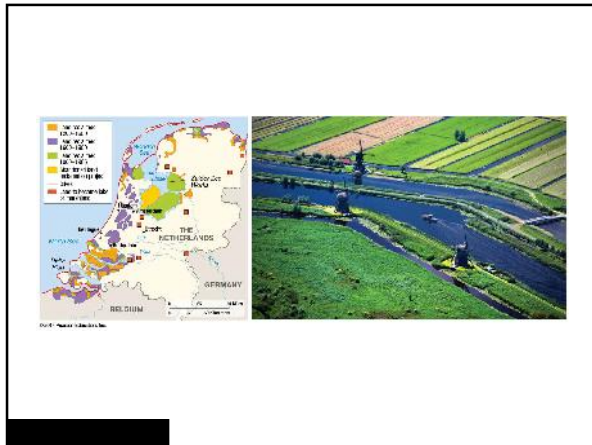
- Earth's Physical Systems
 - Geographers classify natural resources as part of four interrelated systems.
 - **Abiotic** system is one composed of nonliving or inorganic matter.
 - Atmosphere: thin layer of gas surrounding Earth
 - Hydrosphere: all water on and near Earth's surface
 - Lithosphere: Earth's crust and layer just below the crust
 - **Biotic** system is one composed of living organisms.
 - Biosphere: all living organisms on Earth

Why Are Some Human Actions Not Sustainable? →

- Interactions in the Biosphere
 - People are now the most important agents of change on Earth.
 - Human modification of the abiotic systems has ongoing ramifications.
 - Examples
 - Atmosphere contains pollutants, humans have trouble breathing.
 - Without water, humans waste away and die.
 - Excessive extraction of resources from lithosphere limits availability of materials for building and fuel for energy.
 - Excessive erosion or depletion of nutrients limits biosphere's ability to provide food for humans.

Why Are Some Human Actions Not Sustainable?

- Modifying the Environment
 - Few ecosystems have been as thoroughly modified as those of the Netherlands and Florida.
 - Netherlands
 - Much of the Netherlands would be underwater, if it weren't for **polders**- a piece of land that is created by draining water from an area.
 - Dutch have become world leaders in reducing the causes of global warming and industrial pollution.
 - Florida
 - Unsustainable modifications made to ecosystem, as a result of draining portions of the Everglades and water pollution from cattle grazing





Summary



- Geography is most fundamentally a spatial science exhibited by its emphasis on mapping.
- Every place on Earth is in some respects unique, although regions of likeness can be drawn because of the diffusion of people, objects, and ideas.
- A substance is merely part of nature until a society has a use for it. If its price disregards its costs to the environment, then it is often an unsustainable practice.

The End
