

Chapter 1 Section 4

**Why are Some Human
Actions Not Sustainable?**

Sustainability and Resources

- Resources
 - Substance in environment that is useable to people
 - Economically and technologically feasible to access
 - Socially acceptable to use
- 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.

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

Earth's Physical Systems

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

Earth's Physical Systems

- 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.

Sustainability and the Future

- Which theory should be the basis for our future planning and development?
 - Environmental Determinism (1769- 1859 Alexander Von Humboldt/ Carl Ritter)
 - Human activity is dictated by the natural world
 - Certain environments allow for greater success, but all success is controlled by the limits of one's environment
 - Apply scientific laws to human/environmental interactions
 - Possibilism (Modern Approach)
 - Environment can limit humans, but we have the ability to adjust to and modify the environment when needed

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