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| Connections  | Note Chapter 1 Section 4  |
| 1. Vocabulary ( 4 Terms Defined) 2. Debate: Environmental Determinism vs Possibilism (Explain) 3. **List  individuals**: (Individuals and contributions within the notes that can be noted) 4. **Significant**: (4 Points that are significant to highlight from the notes)5. Clarify: ( Identify two things that you may still not understand) | **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.
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.
1. **Abiotic system** is one composed of nonliving or inorganic matter.
2. **Atmosphere**: thin layer of gas surrounding Earth
3. **Hydrosphere:** all water on and near Earth’s surface –
4. **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. Which raises many concerns because:
1. Human modification of the abiotic systems has ongoing ramifications.

 Examples:1. Atmosphere contains pollutants, humans have trouble breathing.
2. Without water, humans waste away and die.
3. Excessive extraction of resources from lithosphere limits availability of materials for building and fuel for energy.
4. Excessive erosion or depletion of nutrients limits biosphere’s ability to provide food for humans.

**Why Are Some Human Actions Not Sustainable?**Environmental Determinism vs Possibilism * Environmental Determinism; believed that physical environment caused social development.
* Alexander von Humboldt and Carl Ritter argued that geographers should apply laws from the natural sciences to understanding relationships between the physical environment and human actions.
* They argued that the scientific study of social and natural processes is fundamentally the same.
* Modern Geographers reject environmental determinism and instead adopt the idea of Possibilism; which argues that the physical environment may limit some human action but people have the ability to adjust from many alternatives in the physical environment.

**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

**Why Are Some Human Actions Not Sustainable?*** The Florida Everglades was once a very wide and shallow fresh – Water River.
* Modifications opened up a vast portion of the Everglades for farming and a growing population.
* Polluted water from these modifications now threaten the Everglades.
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| Essential Question:In your opinion, what challenges does the US have in regards to sustainability, and what changes would you recommend we make to ensure sustainability in the long run?  | Summary  |