

## APES Outline Ch 2: Environmental History

### 2-1 Cultural Changes and the Environment

- A. Three major changes have occurred since humans were hunter-gatherers. These changes have increased our impact on the environment.
  - 1. Humans (*Homo sapiens*) have been in existence for about 160,000 years, a mere blink of an eye in terms of biological life.
  - 2. The agricultural revolution (10,000–12,000 years ago), the industrial-medical revolution (about 275 years ago), and the information and globalization revolution (about 50 years ago) increased human environmental impact.
    - a. We have more energy and technology available to alter and control the planet to meet our needs and wants.
    - b. Human population greatly increased.
    - c. Pollution, increased resource use, and environmental degradation occur.
- A. Hunter-gatherers had a small impact on the environment.
  - 1. The earlier hunter-gatherers collected plants, hunted, fished, and were nomadic, moving with the seasons.
    - a. They lived in small groups.
    - b. They had expert knowledge of their natural surroundings.
    - c. Population growth was slow due to high infant mortality and a shorter life expectancy.
  - 2. Advanced hunter-gatherers had a larger environmental impact.
    - a. Tools and fire were used.
    - b. Evidence indicates that they altered the distribution of plants and animals.
    - c. Low resource use per person, migration, and lack of technology allowed environmental repair to occur.
- A. Agriculture provided food for longer, healthier living, but increased environmental degradation.
  - 1. With the agricultural revolution, people settled into communities, cultivated plants and domesticated animals.
    - a. Slash-and-burn cultivation developed in tropical regions.
    - b. Sustainable cultivation (such as seen with this rotational type) meant little impact on the land.
  - 2. More advanced forms of agriculture had both beneficial and harmful effects.
    - a. More food was available for healthier, longer-lived people.
    - b. Towns and villages formed.
    - c. Habitat destruction began to occur.
    - d. This was the beginning of soil erosion and overgrazing of areas.
    - e. Pollution of natural resources began to occur.
- A. The industrial-medical revolution meant a higher standard of living coupled with greater environmental degradation.
  - 1. This revolution began in England in the 1700s and came to the U.S. in the 1800s.
  - 2. The shift was from reliance on renewable resources to dependence on nonrenewable fossil fuels.
  - 3. Centralized factories now began to mass-produce goods.
  - 4. Use of fossil fuels in factory towns led to serious air pollution from ash and soot causing death from lung ailments.
  - 5. Working conditions were often dangerous.
  - 6. Advancements led to the reduction in number of farmers needed to produce sufficient food, and this led to more people moving into towns.
- A. Global access to information can lead us to understand and respond to environmental problems.
  - 1. Maps and models of environmental systems are available.
  - 2. Awareness of environmental problems can lead us to respond effectively.
  - 3. Information overload can lead to confusion and hopelessness.
  - 4. We may see a more uniform environment with loss of biological and cultural diversity.

### 2-2 Environmental History of the United States: The Tribal and Frontier Eras

The environmental history of the U.S. is divided into four eras: tribal, frontier, conservation, and environmental.

- A. Five to ten million tribal people had a low environmental impact for at least 10,000 years.
  - 1. The lifestyle was hunter-gatherer with sustainable agriculture.

2. Most cultures had a deep reverence for nature and did not believe in land ownership.
- A. European settlers considered the land a frontier to conquer and settle.
1. This era began in the 1600s.
  2. Resources were thought to be inexhaustible.
  3. The land was viewed as hostile, dangerous, and needing to be conquered.
  4. The frontier was to be conquered, and this attitude is still a part of American culture.

## 2-3 Environmental History of the United States: the Early Conservation Era (1832–1960)

A few people warned Americans of resource base degradation, but now many listened to warnings.

- A. Conservationists urged protection of public wilderness areas
1. Henry David Thoreau wrote *Life in the Woods*, an environmental classic about his observations of nature for two years in the Massachusetts woods.
  2. George Perkins Marsh, a scientist and Vermont legislator, published *Man and Nature* in 1864 in which he presented studies to show resources must be conserved.
- A. Between 1870 and 1930, the role of the federal government and private citizens increased to protect natural resources.
1. The Forest Reserve Act of 1891 established that federal government was responsible for protecting public lands from exploitation.
  2. John Muir was a geologist and naturalist who founded the Sierra Club in 1892. He lobbied for conservation laws.
    - a. He led the preservationist movement to limit use of public wilderness to hiking and camping.
    - b. He lobbied for a National Park system
    - c. He was responsible for establishing Yosemite National Park in 1890.
  3. President Theodore Roosevelt (1901–1909) established wildlife reserves and tripled the size of national forest reserves.
    - a. He persuaded Congress to grant the president power to designate public land as federal wildlife reserves
    - b. The U.S. Forest Service was created in 1905 with Gifford Pinchot as its first chief.
    - c. The Antiquities Act of 1906 allows the president to protect areas of scientific or historical interest on federal lands as national monuments.
    - d. In 1907 Congress banned executive withdrawals of public forests.
    - e. Roosevelt is considered to be the best environmental president.
  4. The National Park Service Act was passed in 1916.
  5. Presidents Harding, Coolidge, and Hoover promoted resource removal from public lands at low prices to stimulate economic growth.
  6. Hoover proposed selling all public lands to private interests for economic development.
  7. The Great Depression was devastating for the nation, but forestalled the purchase of public lands by private interests.
- A. In the 1930s the government bought land and hired workers to restore the country's degraded environment.
1. President Franklin D. Roosevelt established conservation projects and public health projects in the 1930s.
  2. The Civilian Conservation Corp (CCC) was established in 1933.
    - a. Two million people obtained work with CCC restoring degraded environments and building dams, etc.
    - b. The CCC provided jobs, flood control, irrigation water, and cheap electricity.
    - c. Few changes were made in the 1940s and 1950s due to WWII and economic recovery after the war.

## 2-4 Environmental History of the United States: The Environmental Era (1960–2004)

There was an environmental reawakening, and citizens urged government to improve environmental quality.

- A. The 1960s were the beginning of the modern environmental movement.
1. Rachel Carson researched the effects of pesticides and wrote *Silent Spring*, a documentation of the harmful effects of pesticides on air, water, and wildlife. This was a very controversial book.
  2. Congress passed the Wilderness Act in 1964.
  3. Paul Erlich, Barry Commoner, and Garrett Hardin described the relationships among population growth, resource use, and pollution.
  4. Public awareness grew concerning the harmful effects of pollution and habitat loss for wildlife species.

5. Photographs of Earth from space in 1969 resulted in a “spaceship earth” environmental worldview.
- B. What happened during the 1970s? The environmental decade congress passed a number of laws to improve environmental quality and conserve natural resources.
  1. The first annual Earth Day was held April 20, 1970, celebrated by 20 million people.
  2. President Richard Nixon established the Environmental Protection Agency (EPA) in 1970.
    - a. The Endangered Species Act was passed in 1973.
    - b. The Bureau of Land Management (BLM) received its first real authority to manage public lands under its control with the passage of the Federal Land Policy and Management Act in 1978.
    - c. 85% of public lands are in 12 western states.
    - d. A political campaign known as the “sagebrush rebellion” resulted as miners, ranchers, loggers, developers, farmers, and others joined together to try to greatly reduce government regulation and to persuade legislators to sell or lease these lands to private interests at low prices.
    - e. This was a return to the thinking of President Hoover to turn all public lands over to private ownership.
  1. President Jimmy Carter (1977–1981) was responsive to environmental concerns.
    - a. Congress was persuaded to create the Department of Energy with the task of reducing the heavy dependence of the country on imported oil.
    - b. He appointed environmentalists to key positions and consulted on resource policy matters.
    - c. Carter helped create a Superfund as part of the Comprehensive Environment Response, Compensation, and Liability Act in 1980 designed to clean up abandoned hazardous waste sites.
    - d. Carter tripled the land in the National Wilderness system and doubled the land in the National Park system.
- C. What happened during the 1980s? Environmental backlash. An anti-environmental movement formed to weaken or rescind many of the environmental laws passed during the 1960s and 1970s in order to destroy the political effectiveness of the environmental movement.
  1. Key environmental events of the 1980s are summarized in Figure 5 in Appendix 2.
  2. President Ronald Ragan greatly increased private energy and mineral development and timber cutting on public lands during his eight years in office.
    - a. During this period federal funding for research on energy conservation and renewable energy resources was drastically cut.
    - b. Many of Reagan’s policies were challenged, were strongly opposed in Congress, and resulted in public outrage.
    - c. The “wise-use” movement was formed in 1988, backed by coal, oil, mining, automobile, timber, and ranching interests. The goals were to weaken/repeal environmental laws and incapacitate the movement.
  1. Elected in 1989, George H. W. Bush continued to support exploitation of valuable resources on public lands and allowed some environmental laws to be undercut even though he promised to be the “environmental president”.
- A. What happened from 1990 to 2004? Trying to hold the line. Most environmental efforts since 1990 have been spent trying to keep anti-environmentalists from weakening or eliminating laws passed in the 1960s and 1970s.
  1. Bill Clinton appointed environmentalists to key positions in environmental and resource agencies during the eight years of his presidency.
  2. Bill Clinton protected more public land as national monuments in the lower 48 states than any other president.
  3. Environmentalists have had to counter claims that problems such as global warming and ozone depletion are hoaxes or not serious.
  4. Grassroots environmental groups sprang up during the 1990s, and there was an increased awareness of complex environmental issues.
  5. George W. Bush became president in 2001 and proceeded to weaken many environmental and public land use laws and policies.
  6. Bush’s policies rest on increasing use of fossil fuels and a relaxation of air and water quality standards. He also tried to repeal or weaken most of the pro-environmental measures established by Clinton.
  7. Moderate Republicans and most Democrats agree that environmental problems are too serious to be used as a political tool. They urge elected officials to become the world leader in making the 21<sup>st</sup> century the environmental century.

2-5 Case Study: Aldo Leopold and His Land Ethic

- A. Aldo Leopold was a strong proponent of land ethics—that humans have an ethical responsibility to preserve wild nature.
- B. As a member of the U.S. Forest Service he became aware of land deterioration of public lands.
- C. Leopold founded the profession of game management and was a founder of the Wilderness Society in 1935.
- D. Leopold was one of the founders of the conservation and environmental movements of the 20<sup>th</sup> century.
- E. People need to be plain citizens of the Earth instead of its conquerors.