

CHAPTER 24 ENVIRONMENTAL POLICY, LAW, AND PLANNING

Chapter Overview

This chapter explains environmental policy. It discusses the roles of each branch of the United States government in policy-making, and describes many environmental laws and treaties. Several major laws are described in detail.

Topics and Key Concepts

Land and Water Use

- List the major environmental laws passed in the U.S.

Pollution

- List the major environmental treaties passed by the majority of the countries in the world.

Global Change

- Discuss the purpose and limitations of international treaties and conventions intended to protect the environment.
- Postulate why the U.S. has not entered into some of the most significant of those treaties.

Key Terms

Basel Convention

*CERCLA

*Clean Air Act

*Clean Water Act

Convention on

International Trade

in Endangered

Species (CITES)

cost-benefit analysis

environmental impact

statement (EIS)

environmental policy

*ESA

*executive order

*Federal Aid in Wildlife

Restoration Act

(Pittman-Robertson

Act)

*FFDCA

*FIFRA

*Kyoto Protocol

*Lacey Act

*Magnuson-Stevens

Fishery

Conservation and

Management Act

Montreal Protocol

National

Environmental

Policy Act (NEPA)

policy

precautionary

principle

*RCRA

*Safe Drinking Water

Act

*SMRCRA

*TSCA

UN Framework

Convention on

Climate Change

(UNFCCC)

Pacing Guide

The development of laws and policies and their local and global implications are important components of citizenship and environmental stewardship. Students need to be aware of the consequences of their actions in whatever they do; in this case, the area of concern is the environment. While you have been incorporating this information into your presentations throughout the course, now is a good time to spend 3–4 days solidifying students' thoughts on what it means to be a citizen of the world.

Approach and Tips

How we protect our resources and reduce levels of pollution while continuing to grow economically leads to a discussion of environmental policy.

While much of the information presented in this chapter does not deal with science per se, students need to understand the legislative process and who is responsible for creating environmental policy and implementation. Explain that environmental policy refers to government rules and regulations in regard to environmental issues. Although the United States has agreed to the 1969 National Environmental Policy Act (NEPA), it has not made environmental protection a fundamental human right as a constitutional provision. NEPA only requires an environmental impact statement for federal projects; each state has different requirements for local and state projects.

Emphasize the importance of environmental law. Environmental law constitutes a special body of official rules, decisions, and actions concerning environmental quality, natural resources, and ecological sustainability. This is one of the most important ways to protect our environment. Explain that historically, government was not involved in the effects of business and industry on the environment. In the 1960s and 1970s, more than 27 major federal laws and hundreds of regulations for environmental protection were established, such as: the U.S. Clean Water Act in 1972, and the National Environmental Protection Act in 1969. In addition, all AP students need to know what an Environmental Impact Statement (EIS) is and how it is used.

Students should understand how our government makes laws. Explain that a bill must pass both the House of Representatives and the Senate before it can become law. The President also must sign it. The President has the right to veto any bill. Briefly, explain the role of lobbyists. Mention executive orders, as they have been the focus of some lawsuits regarding the EPA, since it was created by executive order by President Nixon.

Students must be aware of some of the important environmental laws and policies, as given in Table 24.1 (p. 547).

Table 24.1 Major U.S. Environmental Laws	
Legislation	Provisions
Wilderness Act of 1964	Established the national wilderness preservation system.
National Environmental Policy Act of 1969	Declared national environmental policy, required Environmental Impact Statements, created Council on Environmental Quality.
Clean Air Act of 1970	Established national primary and secondary air quality standards. Required states to develop implementation plans. Major amendments in 1977 and 1990.
Clean Water Act of 1972	Set national water quality goals and created pollutant discharge permits. Major amendments in 1977 and 1996.
Federal Pesticides Control Act of 1972	Required registration of all pesticides in U.S. commerce. Major modifications in 1996.
Marine Protection Act of 1972	Regulated dumping of waste into oceans and coastal waters.
Coastal Zone Management Act of 1972	Provided funds for state planning and management of coastal areas.
Endangered Species Act of 1973	Protected threatened and endangered species, directed FWS to prepare recovery plans.
Safe Drinking Water Act of 1974	Set standards for safety of public drinking-water supplies and to safeguard groundwater. Major changes made in 1986 and 1996.
Toxic Substances Control Act of 1976	Authorized EPA to ban or regulate chemicals deemed a risk to health or the environment.
Federal Land Policy and Management Act of 1976	Charged the BLM with long-term management of public lands. Ended homesteading and most sales of public lands.
Resource Conservation and Recovery Act of 1976	Regulated hazardous waste storage, treatment, transportation, and disposal. Major amendments in 1984.
National Forest Management Act of 1976	Gave statutory permanence to national forests. Directed USFS to manage forests for "multiple use."
Surface Mining Control and Reclamation Act of 1977	Limited strip mining on farmland and steep slopes. Required restoration of land to original contours.
Alaska National Interest Lands Act of 1980	Protected 40 million ha (100 million acres) of parks, wilderness, and wildlife refuges.
Comprehensive Environmental Response, Compensation and Liability Act of 1980	Created \$1.6 billion "Superfund" for emergency response, spill prevention, and site remediation for toxic wastes. Established liability for cleanup costs.
Superfund Amendments and Reauthorization Act of 1994	Increased Superfund to \$8.5 billion. Shares responsibility for cleanup among potentially responsible parties. Emphasizes remediation and public "right to know."

Protecting the environment is a global issue. Over the past 25 years, more than 170 treaties and conventions have been negotiated to protect our global environment. Discuss the following questions: How successful are these conventions and treaties on a global basis? What are some of the drawbacks of implementing such treaties? CITES, the Montreal Protocol, and UNCED are all famous efforts to protect the environment; what does each address specifically? Where does the United States stand on each? Should there be a change in our policies? Who is responsible for legislating such change? What can you do to get action on these policies in the United States?

The best way for students to learn and memorize the major laws is to make flashcards or a flipbook. Students can make a foldable, multi-colored flipchart. They write or copy the law on the outside flap, and then open the flap and write the explanation of the law on the inside. This is a great tool for students to quiz themselves or each other on the major laws before the AP exam. In addition, make sure students know the differences among state, federal (national), and international law.

Common Mistakes and Misconceptions

Students commonly make mistakes on the AP test when asked to give a law that would fit a certain scenario. The students who are not familiar with the laws will

make up a law. As a reader, we get many made-up laws that are close to real laws but are not one. If the students come prepared with the major U.S. laws memorized, they will avoid this situation. Students also use the incorrect acronym; acronyms are ok to use on the AP exam, but they must be correct.

Activities

Endangered Species Activity

Begin class by having students read the Case Study “Can Policy Protect Elephants?” Discuss the purpose of CITES and how it attempts to protect the African elephants. Have students identify some other species that may be protected by CITES. This discussion should segue into a discussion about IUCN and the description of the Red List. Assign students to groups, and assign each group a species to research. A worksheet for this activity can be found at the end of this chapter. Alternately, allow students to pick an ES and write a research paper on its natural history, cause for endangerment, and human intervention.

Questions for Review

1. What are the steps to enact an environmental law?
A bill is brought before Congress, where both the House and the Senate must ratify it. To become law, the President must sign it.
2. Why do international treaties exist? Give an example of one such treaty.
Because pollution and other environmental concerns are global concerns, treaties are agreed upon by many nations. Examples include the Montreal Protocol and CITES. More examples can be found in Table 24.2 (p. 554).
3. Which U. S. law laid the groundwork for all other environmental laws? What is an EIS, and how does it work?
Signed into law by President Nixon in 1969, NEPA laid the groundwork for all other environmental laws. It led to the formation of the EPA. An EIS or Environmental Impact Statement must contain the following elements: (1) purpose and need for the project, (2) alternatives to the proposed action (including taking no action), (3) a statement of positive and negative environmental impacts of the proposed activities. In addition, an EIS should make clear the relationship between short-term resources and long-term productivity, as well as any irreversible commitment of resources resulting from project implementation.

Practice Questions

Multiple Choice:

Directions for questions 1–5: The lettered choices below correspond to the descriptions given in questions 1–5. Select the one lettered choice that best fits each statement. Each choice may be used once, more than once, or not at all.

- (A) EPA
- (B) ESA
- (C) CITES
- (D) NEPA
- (E) EIS

1. federal agency that regulates the environment
2. international law that prohibits trade in endangered species' parts
3. led to the formation of a federal agency that protects the environment
4. must be done before any major federal project
5. cornerstone of U. S. environmental policy
6. An act that established a monetary fund to help remediate abandoned toxic sites is _____.
 - (A) the Clean Air Act
 - (B) the Clean Water Act
 - (C) ESA
 - (D) the Superfund
 - (E) CITES
7. Which of the following are NGOs (non-governmental organizations)?
 - I. The Sierra Club
 - II. National Wildlife Fund
 - III. The EPA
 - (A) I only
 - (B) I and II
 - (C) II only
 - (D) III only
 - (E) I, II, and III

8. What international treaty helped to reduce the loss of ozone in the stratosphere?
- (A) the Kyoto Protocol
 - (B) CITES
 - (C) IUCN
 - (D) ESA
 - (E) the Montreal Protocol
9. The Kyoto Protocol
- (A) is currently eliminating CFCs.
 - (B) has been ratified by the United States.
 - (C) is attempting to limit greenhouse gas emissions.
 - (D) protects Japan against nuclear accidents.
 - (E) both (A) and (B)
10. The country with the Law of Mother Earth is
- (A) Bolivia
 - (B) Mexico
 - (C) Brazil
 - (D) the United States
 - (E) Japan

Free-Response Question:

Directions: Answer all parts of the following question. Where explanation or discussion is required, support your answers with relevant information and/or specific examples. When a calculation is required, be sure to show how you arrived at your answer.

1. Environmental policy involves both federal and international law.
- (a) Identify and describe **two** environmental international treaties.
 - (b) Identify and describe **two** environmental federal laws.
 - (c) The Knightland Corporation has a federal contract to build a nuclear power plant.
 - (i) Describe the steps that must be taken according to NEPA.
 - (ii) Identify one federal law that might prohibit the building of the nuclear power plant.

Answers to Practice Questions

Multiple Choice:

1. A
2. C
3. D
4. E
5. D
6. D
7. B
8. E
9. C
10. A

Free-Response Question:

This question is based on 11 points. The students can score a maximum of 10 points.

1. (a) 4 points total. 1 point for each identification, and 1 point for each description. Only the first two will be scored. **Table 24.2** in the textbook contains important international treaties.
- (b) 4 points total. 1 point for each identification, and 1 point for each description. **Table 24.1** in the textbook contains important U. S. laws.
- (c) (i) 2 points total. 1 point for indicating that the company would need to file an Environmental Impact Statement, and 1 point for explaining that this statement must include both positive and negative impacts on the environment as a result of the project.
- (ii) 1 point for indentifying a law. Laws include ESA, Clean Air Act, Clean Water Act.

Answers to questions in the Student Edition:

Case Study AP Document-Based Question (page 544)

- (A) Answers may include: enforcement, because deciding who enforces international policies is difficult because any one country cannot take full responsibility for it; cultural differences, because different cultures have different traditions that may violate international policies, but they still have the right to practice their traditions; geographical boundaries, because policies may not be enforced in countries that do not follow the international policy, even if they are violating it.
- (B) International treaties include protections of elephants and their habitats. Governments, landowners, and citizens can have an economic interest involved if the treaty includes receiving revenue from eco-tourism or hunting trips that come along with these protections.

AP Connections Review Answers (pages 562)

Multiple-Choice

1. b. CITES regulates international trade in endangered and threatened species.
2. a. NEPA requires that an environmental impact statement is written for any federal project.
3. c. CERCLA is the law allowing rapid response and cleanup of hazardous waste sites.
4. d. The Montreal Protocol is the international agreement that called for a reduction of CFCs.

Data Analysis and Free-Response Questions

- 1A Mid-Atlantic percent decrease in inorganic nitrogen deposition is 60% (dry $(2.5-1.0)/2.5 \times 100$), 34% (wet $(6.2-4.1)/6.2 \times 100$), and 41% (total $(8.8-5.2)/8.8 \times 100$). The total inorganic nitrogen deposition has decreased, with the majority from a decrease in dry deposition. The Midwest percent decrease in inorganic nitrogen deposition is 46% (dry $(2.4-1.3)/2.4 \times 100$), 12% (wet $(5.8-5.1)/5.8 \times 100$), and 34% (total $(8.6-6.4)/6.4 \times 100$). The percent decrease in the Midwest shows a similar pattern to the Mid-Atlantic, but the Mid-Atlantic has decreased total inorganic deposition by 7% more than the Midwest.
- 1B The ratio of dry inorganic nitrogen to wet inorganic nitrogen deposition in 2012-2014 is $0.8/3.5$ or 0.23 .
- 1C The regional differences in nitrogen deposition include higher depositions in the Mid-Atlantic and Midwest compared to the Northeast and Southeast. This could be influenced by the presence of factories and agriculture in the Mid-Atlantic and Midwest. The decrease in deposition from 1989-1991 to 2012-2014 has also been faster in the Mid-Atlantic and Midwest than in the Northeast and Southeast. This is likely due to policies that address air pollution from factories

and fertilizer use in agriculture. *Note: The Pollutants Chart in Appendix C of this text is helpful in answering this question.

2A Acid deposition can be classified as a local or regional environmental issue because it reduces crops yields and farmers' incomes and local visibility can be reduced from smog. It can also be classified as a national or international issue because nitrogen deposition can lead to higher ozone levels (both nitrogen and ozone can cause human health issues on a large scale) and effects on crops can cause larger food shortages or changes in prices on a national or international scale.

2B Answers will vary. Examples include the Clean Air Act, a federal policy that provides standardized rules in the U.S. to identify, monitor, and reduce air contaminants including nitrogen oxides and the Clean Water Act, used to address point and non-point sources of water pollution.

2C Powerplants can reduce their acid release by using scrubbing filters on emissions, or by reducing their emissions in general through higher efficiency or a decrease in fossil fuel use. *Note: The Pollutants Chart in Appendix C of this text is helpful in answering this question.

2D Acidified ecosystems can be reclaimed by treating them with lime (calcium carbonate) which neutralizes the pH of the waters and soils in the ecosystem. *Note: The Pollutants Chart in Appendix C of this text is helpful in answering this question.

Endangered Species Activity

Your mission, should you choose to accept it, is to protect your species from inevitable peril. First, you need to find the habitat of your species. Provide a map that shows your species' range. Next, make a presentation (video or PowerPoint) to plead for the survival of your species.

1. Where does your species live?
2. Approximately how many are living in the wild?
3. Where in a trophic level diagram does your species live? Explain.
4. Why is your species endangered? Be sure to include all of the reasons.
5. Are there any international treaties/laws that provide protection for your species? Any U. S. laws?
6. Are any actions being taken to make sure your species survives?
7. What can you do to ensure the survival of your species? What can society do?