Chapter 3: Understanding the Root Causes of the Environmental Crisis
3.1 Roots of the Environmental Crisis

- Many different hypotheses have been presented to explain the root causes of the environmental crisis.

- When combined, these hypotheses do a good job of explaining environmental troubles.
Some scholars think that early Christian teaching shaped many people’s attitudes toward nature.

- By setting humans up to have dominion over, instead of equal partners in nature, these scholars suggest that early Christian teaching fostered the creation of exploitive systems of science and technology that are largely responsible for the destruction of the environment.
Religious Roots

- Others argue that although Christian teachings may have influenced thought, humans have a long history of environmental destruction going back long before the advent of Christianity.
Some Cultural Roots: Democracy and Industrialization

- Some scholars believe that the spread of democracy and the Industrial Revolution are at the root of the environmental crisis.
Some Cultural Roots: Democracy and Industrialization

- Democracy put land ownership and wealth in the hands of many.
- The Industrial Revolution made mass production of goods possible and spread wealth throughout society.

Figure 03.02: Industrial production. Industrialization made it cheaper to produce goods and made them more accessible to a large number of people.

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Some Cultural Roots: Frontierism

- Frontierism, a belief in the inexhaustibility of resources, may have also been a root cause of the environmental crisis.
Human populations, like those of other organisms, expand if there are adequate supplies of resources and no other controls.

Figure 03.05B: Biological imperialism. Two supercolonizers, (a) the kudzu and (b) the water hyacinth.
The expansion of some organism populations is facilitated by special characteristics.

For humans, technology has greatly facilitated population growth and increased our environmental impact.
Figure 03.01A: The river before dam construction began.
Figure 03.01B: The dam under construction.
Figure 03.10: Biological imperialism, technology, democratization, and capitalism.
Figure 03.06: Early inhabitants of North America may have wiped out many species of megafauna.
Human attitudes and beliefs are also responsible for many unsustainable practices.

These factors, and others, influence our economic systems, laws, and way of life in profound ways.

Figure 03.11: Psychological factors. Humans seem unable to respond to long-term trends or warnings of problems. Many factors contribute to this inability.
Putting It All Together

- People, the systems that support them, and environmental issues are complex.
- So are the cause-and-effect relationships.

Figure 03.04: Frontierism continues. Tropical rain forests are cut down in record number each year to supply wood and make way for farms.

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Figure 03.07A: The loss of tropical rain forests creates local environmental problems, but for most of the world's people the impacts are long term.

Figure 03.07B: The rain forests help determine climate hundreds of miles away.
Figure 03.08: Remnant of past action. This abandoned city in the desert was once a thriving region, but environmental abuses destroyed it.
Figure 03.13: Many factors contribute to the environmental crisis. They interact in many ways to produce a socioeconomic system that threatens its own existence.
3.2 Leverage Points

- Understanding the root causes of the environmental crisis helps us understand key **leverage points**.

- These points can be addressed to help put society back onto a sustainable course.
Unsustainable human systems are a result of many factors.

Building a sustainable society will require a restructuring of basic human systems.

Changes in technology will be essential to this transition.

Figure 03.03: Industrial pollution from factories.
A New Worldview: Changing Our Perceptions, Values, and Beliefs

- Many observers believe that creating a sustainable society will require profound changes:
  - Changes in our understanding of issues through education.
  - Changes in values that shape how we live.
  - Changes in beliefs to put humans in partnership with nature.
In most Western nations, human values express frontierism.

This attitude causes us to pursue our own interests at the expense of the environment.

Frontier thinking influences how we design and operate all human systems

- Economy
- Government
- Education
- Waste management
The Tenets of Frontierism

1. The Earth is an unlimited supply of resources for exclusive human use—there’s always more, and it’s all for us.

2. Humans are apart from nature, not a part of it. As a result, we often assume that we are immune to natural laws that govern other species.

3. Success comes through domination and control of nature.
Creating a sustainable society that protects the environment will require a new value system that:

- respects limits
- sees humans as a part of the natural world
- recognizes the need to cooperate with nature, not dominate it