

Introduction to Environment and Society

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Key concepts, relationships, and implications for sustainable development

1. Core Definitions

Term	Meaning	Relevance
Environment	The natural world (air, water, soil, flora, fauna) and the ecosystems that sustain life.	Provides the material basis for human survival and well-being.
Society	A group of individuals linked by shared culture, institutions, and interactions.	Organizes the use, management, and protection of environmental resources.
Human-Environment Interaction	The reciprocal influence between people and the natural world.	Drives change in both natural systems (e.g., deforestation) and social systems (e.g., urbanization).
Sustainability	Meeting present needs without compromising the ability of future generations to meet theirs.	Guides policies that balance economic, social, and ecological goals.

2. Historical Perspective

Era	Main Environmental Issues	Societal Response
Pre-Industrial (pre-1800)	Limited resource extraction; localized impacts.	Subsistence economies; cultural practices often embedded ecological knowledge.
Industrial Revolution (1800-1900)	Massive coal use, urban growth, air/water pollution.	Technological optimism; early public health reforms (e.g., sanitation).
Mid-20th Century	Post-war economic boom; intensified mining, dam building, pesticide use.	Emergence of environmental movement (e.g., Rachel Carson's <i>Silent Spring</i> , 1962).

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Era	Main Environmental Issues	Societal Response
Late 20th–21st Century	Climate change, biodiversity loss, plastic pollution, resource scarcity.	International agreements (UNFCCC, CBD), sustainability frameworks (SDGs), green technologies.

3. Major Themes of Human-Environment Relations

3.1. Resource Use & Management

- **Renewable vs. non-renewable resources**
- **Common-pool problems** (e.g., overfishing, groundwater depletion)
- **Governance tools:** property rights, quotas, market mechanisms (carbon pricing).

3.2. Environmental Impacts of Society

- **Pollution:** air (SO₂, NO_x, PM), water (nutrient runoff, heavy metals), soil (pesticides).
- **Land-use change:** deforestation, urban sprawl, agricultural expansion.
- **Climate alteration:** greenhouse-gas emissions, land-surface changes.

3.3. Societal Vulnerability & Adaptation

- **Exposure:** geographic location, economic dependence on natural resources.
- **Sensitivity:** health, infrastructure, livelihoods.
- **Adaptive capacity:** technology, governance, social capital.

3.4. Cultural and Ethical Dimensions

- **Worldviews:** anthropocentric vs. ecocentric perspectives.
 - **Environmental justice:** distribution of environmental benefits and burdens.
 - **Indigenous knowledge:** traditional ecological knowledge (TEK) as a resource for resilience.
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4. Conceptual Frameworks

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1. The DPSIR Model – *Drivers ? Pressures ? State ? Impact ? Response*

- **Drivers:** economic growth, population, consumption patterns.
- **Pressures:** emissions, land conversion, waste generation.
- **State:** condition of air, water, ecosystems.
- **Impact:** health outcomes, loss of ecosystem services.
- **Response:** policies, regulations, behavioral change.

2. Ecosystem Services Classification (Millennium Ecosystem Assessment)

- **Provisioning:** food, water