

Chapter 1 Environmental Problems, Their Causes and Sustainability

1. What is sustainability and why should we care about it?
2. What are the three principles that nature has used to sustain itself for 3.5 billion years, and how can we use these principles to live more sustainably?
3. Define environmental science.
4. Distinguish between an organism and a species.
5. What is an ecosystem? Define natural capital, natural resources, and natural services.
6. Define nutrient cycling and explain why it is important?
7. Describe how we can degrade natural capital and how finding solutions to environmental problems involves making trade-offs.
8. What is a resource? Distinguish between a perpetual resource and a renewable resource and give an example of each.
9. What is sustainable yield?
10. Define and give two example of a nonrenewable resource.
11. Distinguish between recycling and reuse and give an example of each.
12. What is economic growth? Distinguish between gross domestic product (GDP) and per capita GDP.
13. Distinguish between more-developed countries and less-developed countries and give an example of a high-income, a middle income and a low-income country.
14. Define and give three examples of environmental degradation (natural capital degradation).
15. Define pollution. Distinguish between point source and nonpoint sources of pollution.
16. Distinguish between pollution cleanup (output pollution control) and pollution prevention (input pollution control) and give an example of each.
17. Describe three drawbacks to solutions that rely mostly on pollution cleanup.
18. What is the tragedy of the commons?
19. What is an ecological footprint? What is a per capita ecological footprint? Compare the total and per capita ecological footprints of the United States and China.
20. Describe the environmental impacts of China's new affluent consumers.
21. What is an ecological tipping point?
22. Describe three major cultural changes that have occurred since humans were hunter-gatherers.
23. Identify four basic causes of the environmental problems that we face today.
24. What is exponential growth? Describe the past, current, and projected exponential growth of the world's human population.
25. What is affluence?
26. What are two types of environmental damage resulting from growing affluence?
27. How can affluence help us to solve environmental problems?
28. What is poverty and what are three of its harmful environmental and health effects?
29. Describe the connection between poverty and population growth.
30. Explain how excluding from the prices of goods and services the harmful environmental costs of producing them affects the environmental problems we face.

31. What is the connection between government subsidies, resource use, and environmental degradation?
32. What is natural income?