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SUSTAINING THE EARTH • G. TYLER MILLER • SCOTT E. SPOOLMAN



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Chapter 1--Environmental Problems, Their Causes, and Sustainability

Student: _____

1. Earth's capital includes all of the following *except*
 - A. species.
 - B. sunlight.
 - C. water.
 - D. soil.
 - E. nutrients.

2. Which of the following does *not* describe a sustainable society?
 - A. lives off of income without depleting its natural capital
 - B. meets the needs of its people without jeopardizing the needs of future generations
 - C. manages its economy and population size without exceeding the carrying capacity of the environment
 - D. utilizes nonrenewable resources for maximum benefit of the current generation
 - E. protects the prospects of future generations of humans and other species

3. Human lives and activities rely on
 - A. solar capital, natural resources, and natural services.
 - B. environmentalism, ecosystems, and solar capital.
 - C. natural resources, natural services and water resources.
 - D. nutrient cycling, water resources, and environmentalism.
 - E. solar capital, ecosystems, and natural capital.

4. As part of the path to sustainability, tradeoffs most specifically refer to
 - A. trading environmental quality for economic growth.
 - B. trading quality of life issues for ecological enhancements.
 - C. resolving conflicts through compromise.
 - D. solving environmental conflicts.
 - E. recognizing that human activities degrade natural capital.

5. Meeting current and future basic resource needs without compromising future generation's basic needs is considered a(n)
 - A. natural income.
 - B. trade-offs.
 - C. scientific solutions.
 - D. environmentally sustainable society.
 - E. natural capital degradation.

6. The human population currently totals
- A. 87 million.
 - B. 3.8 billion.
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7. The world's population is projected to
- A. stay relatively stable.
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 - C. only slightly decrease.
 - D. decrease dramatically.
 - E. go extinct in the near future.
8. Which of the following statements about developing countries is *true*?
- A. They are highly industrialized.
 - B. They have high average GNPs per person.
 - C. The United States, Canada, and Japan are developing countries.
 - D. Most of the projected increase in the world's population is expected to take place there.
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- A. death rates.
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- A. private property.
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- A. also called perpetual resources.
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- A. USA.
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 - C. Industrial-medical revolution
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- A. recycling of materials.
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 - C. Stewardship
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 - E. Environmental Wisdom
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 - B. Reliance on solar energy that provides heat and supports photosynthesis.
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- True False
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47. As in a human body, the Earth's capacity to repair itself is critical to its survival.
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53. Education on the interrelation of all environmental factors is necessary to permanently decrease pollution.

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54. In the United States the air quality is poorer and drinking water more polluted today than in the 1970s.

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55. When a country's GDP decreases, the per capita GDP must also decrease.

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56. A resource such as solar energy that is renewed continuously is called a(n) _____.

57. _____ is the ability of the environment to function indefinitely in an optimally healthy state.

58. _____ is a possible solution to the problem of people exploiting a free-access resource, but it may not be practical for global common resources.

59. Non-renewable resources include _____ sources such as oil and natural gas that cannot be recycled.

60. A chemical dumpsite would be an example of a _____ pollutant.

61. The action of processing plastic or aluminum cans into another usable product is called _____.

62. Fish, freshwater, wild animals, and fertile soil are examples of _____.

63. A social movement dedicated to protecting Earth's life support system for all living things is called _____.

64. The United States, Canada, and Japan are examples of _____ with a high average per capita GDP.

65. Food, water, shelter, and manufactured goods are _____ used to meet human needs and wants.

66. The consequences of volcanic eruptions and burning coal are _____ and _____.

67. Old soda bottles that were collected, washed, and refilled are an example of _____.

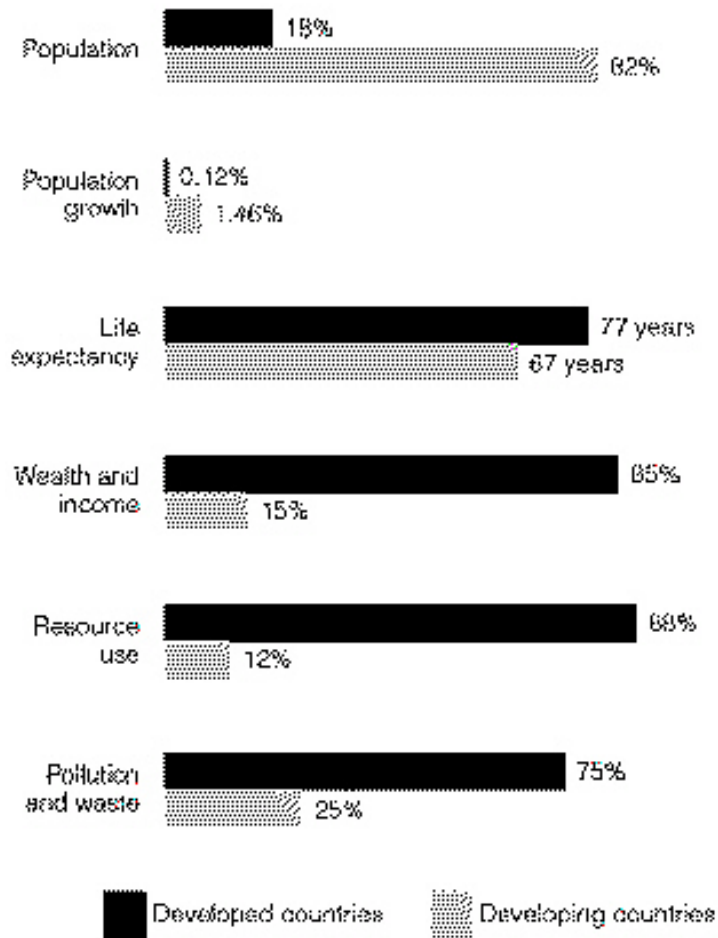
68. Installing runoff curtains in a construction site is an example of _____.

69. Developing countries have a low _____, which poses a threat to their ability to become environmentally sustainable.

70. _____ are not owned by a single person or organization, but are degraded by many people.

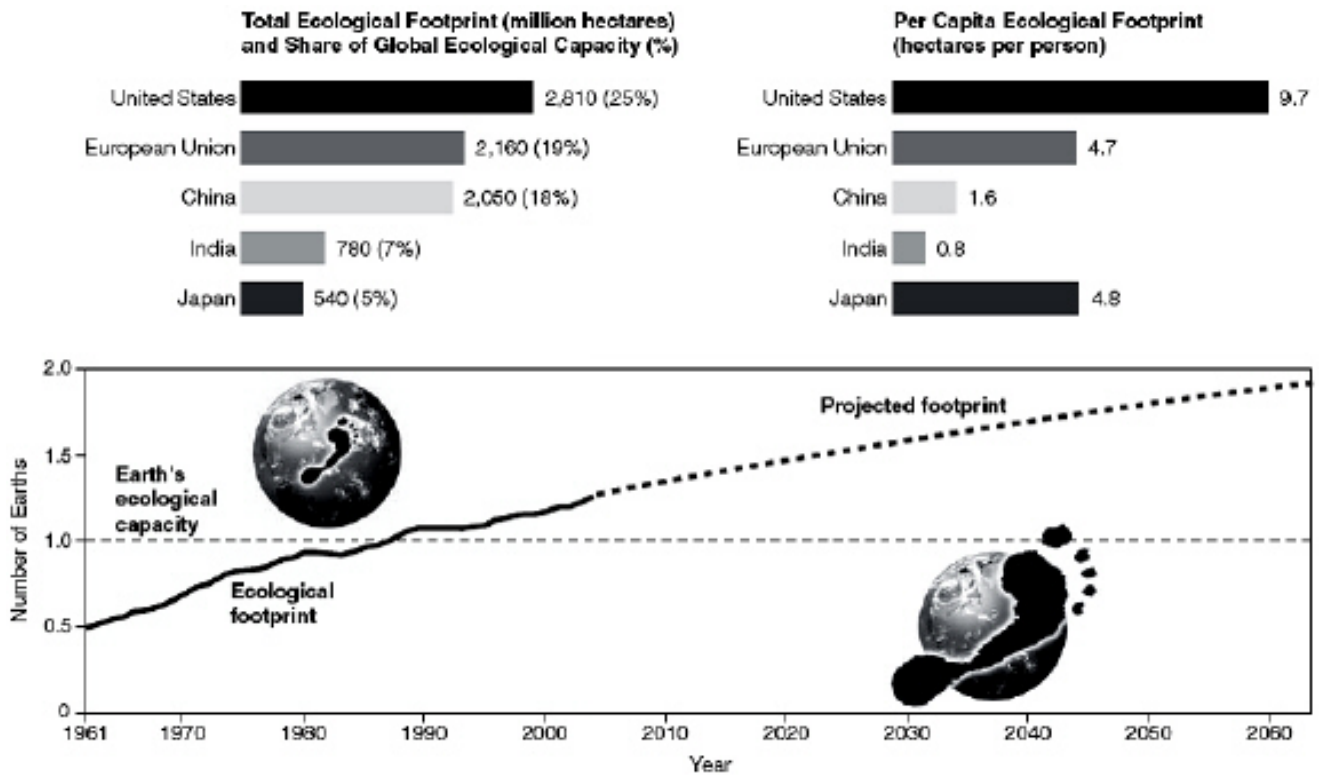
71. Critical Thinking

Percentage of World's:



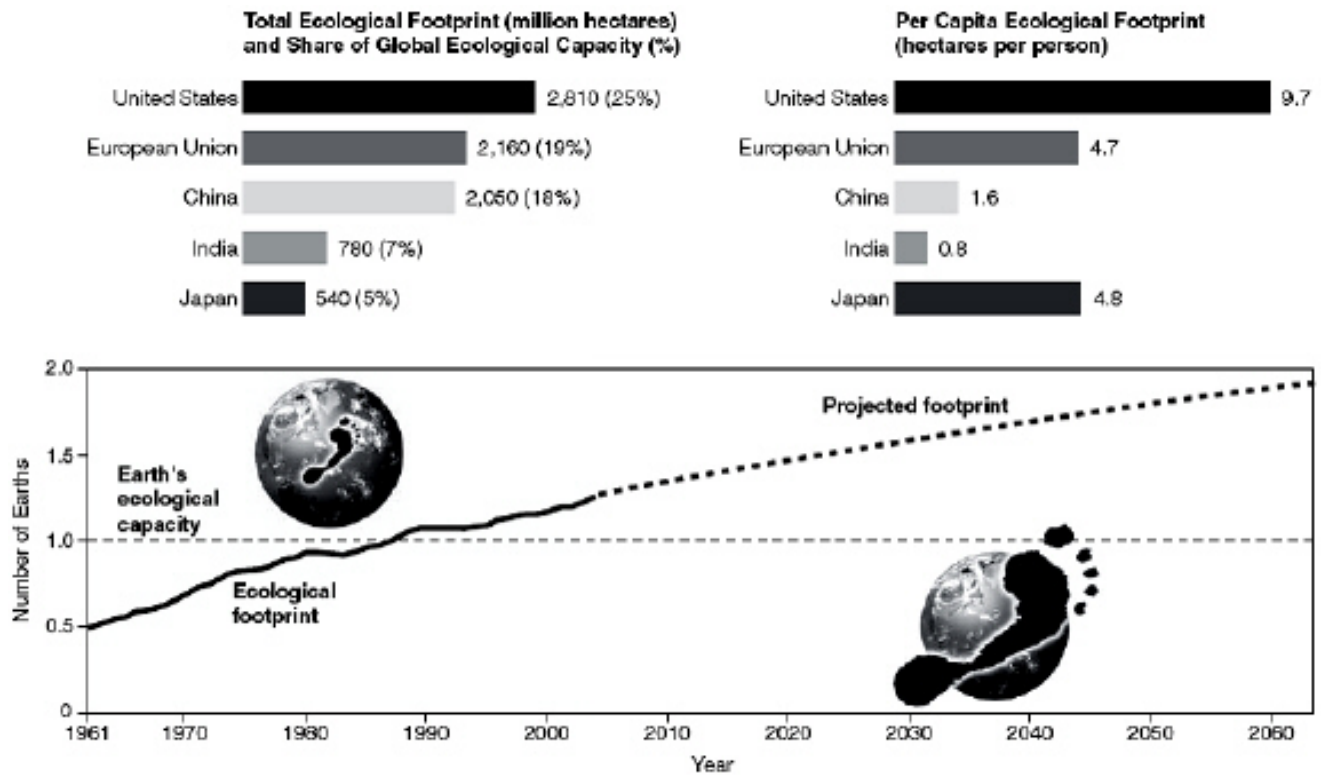
What does this graph say about the world's percentage of resource-use in developed countries?

72. Critical Thinking



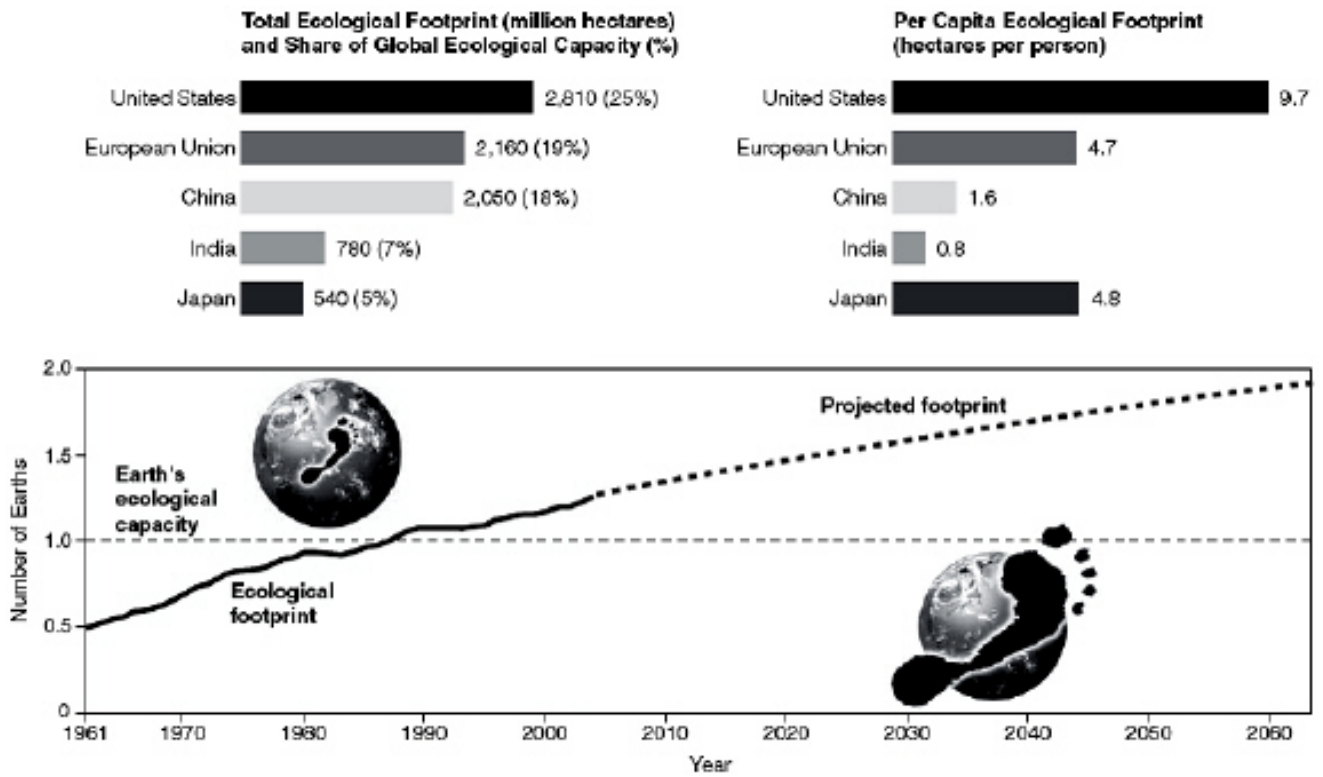
How many Earths are we currently using compared to Earth's ecological capacity?

73. Critical Thinking



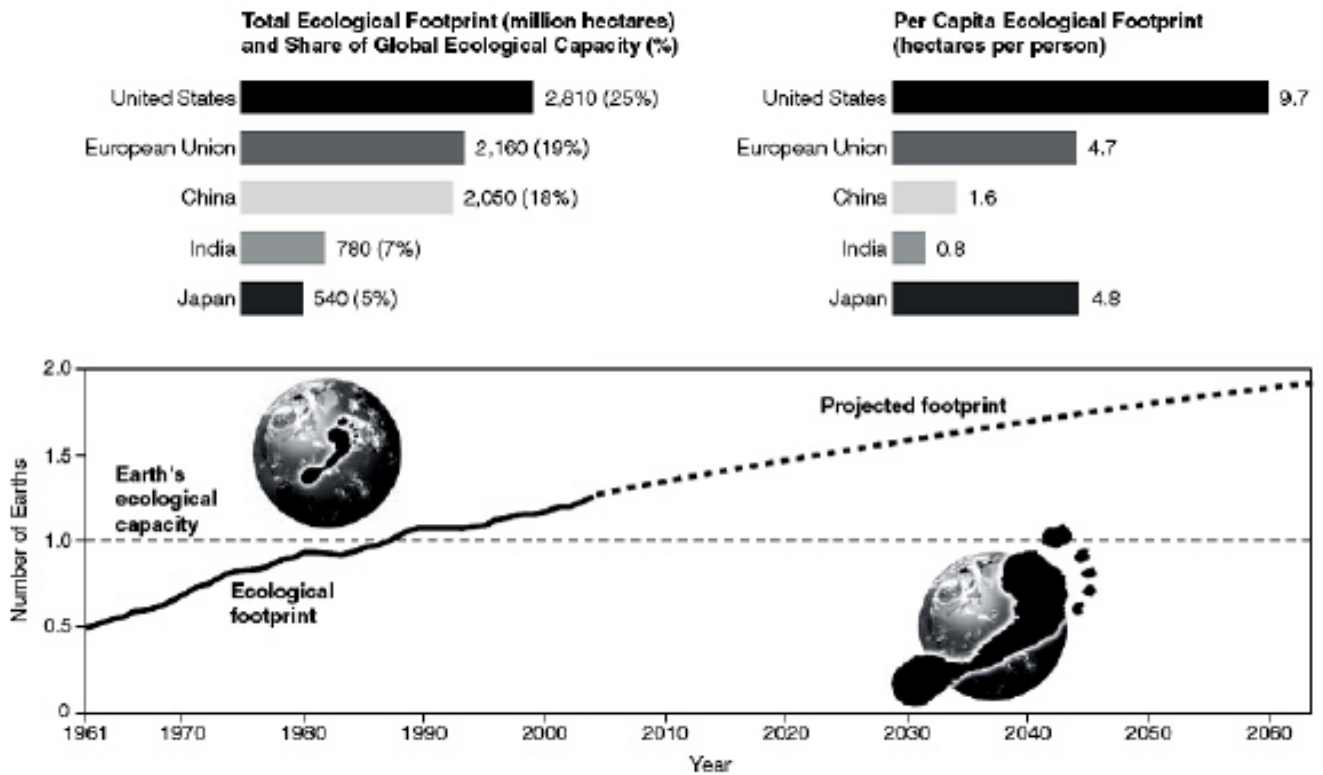
What will happen if humanity's ecological footprint continues to be greater than Earth's ecological capacity?

74. Critical Thinking



Is China's total ecological footprint greater than that of India's?

75. Critical Thinking



What does the difference in ecological footprint between China and India mean?

76. What are the 5 basic causes of environmental problems?

77. Describe the environmental wisdom worldview and provide an example.

78. List the four scientific principles of sustainability and give an example of each.

Chapter 1--Environmental Problems, Their Causes, and Sustainability **Key**

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 - B.** sunlight.
 - C. water.
 - D. soil.
 - E. nutrients.

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FALSE

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**air pollution; global warming or
global warming; air pollution**

67. Old soda bottles that were collected, washed, and refilled are an example of _____.

reuse

68. Installing runoff curtains in a construction site is an example of _____.

pollution prevention

69. Developing countries have a low _____, which poses a threat to their ability to become environmentally sustainable.

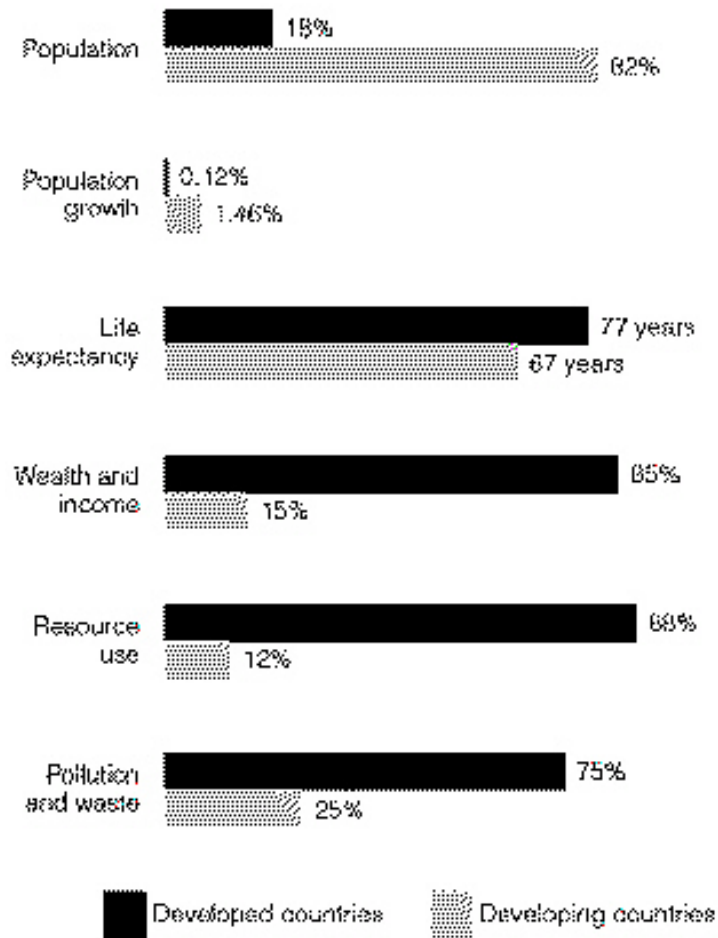
GDP

70. _____ are not owned by a single person or organization, but are degraded by many people.

**Common-property resources or
Free-access resources**

71. Critical Thinking

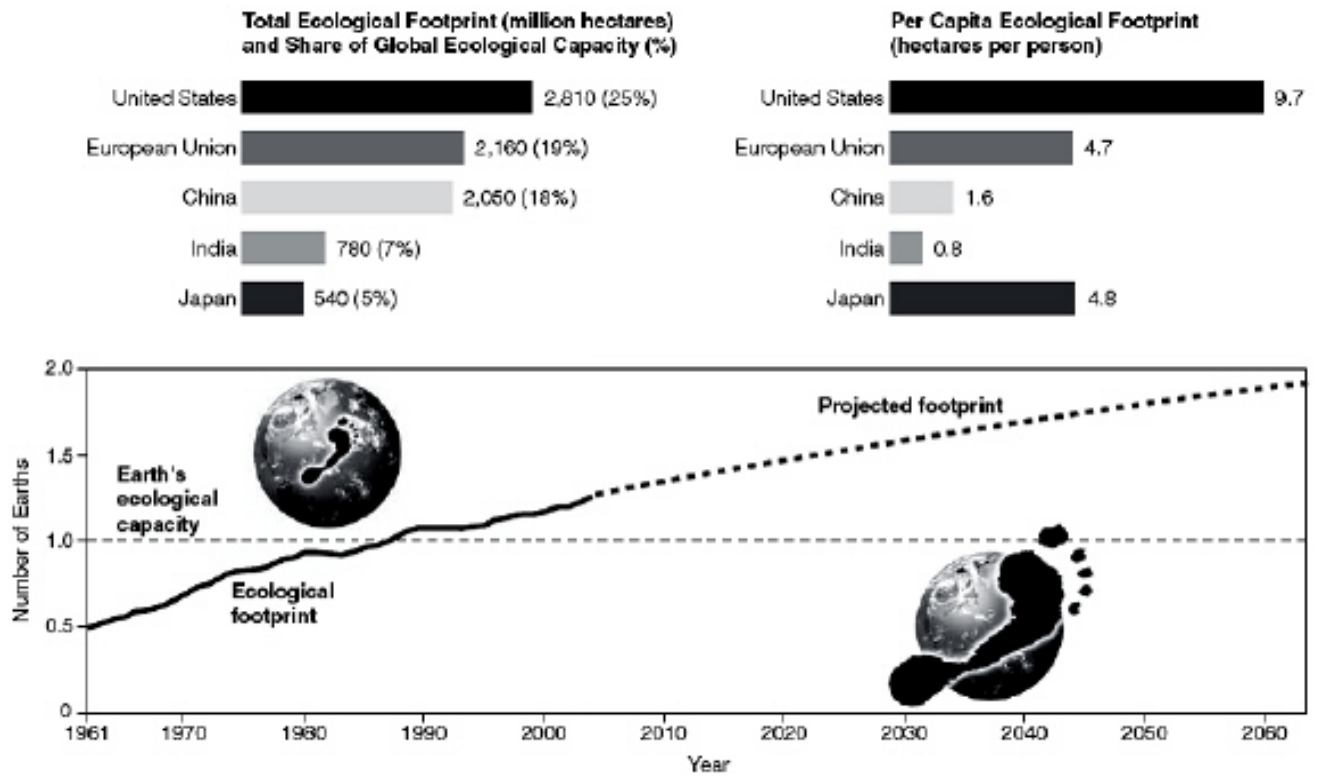
Percentage of
World's:



What does this graph say about the world's percentage of resource-use in developed countries?

Developed countries' populations use about 88% of the world's resources.

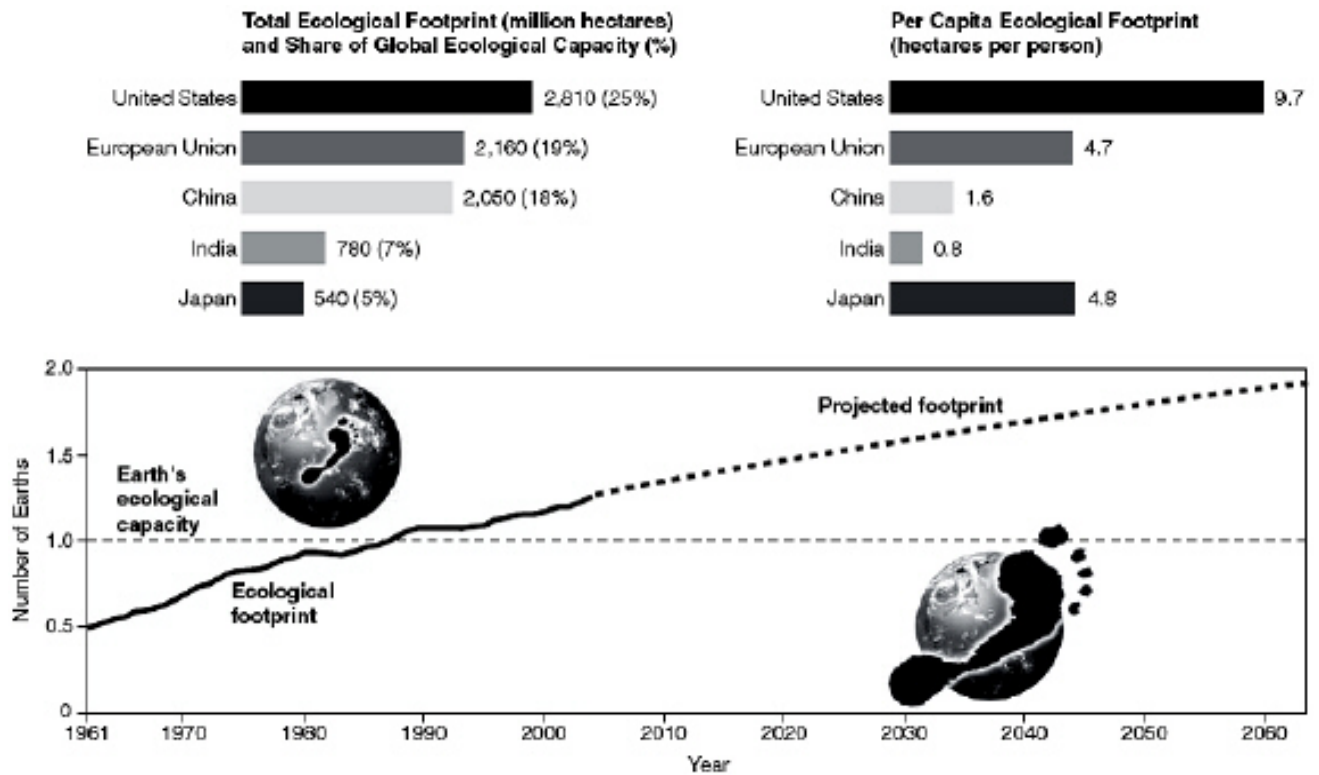
72. **Critical Thinking**



How many Earths are we currently using compared to Earth's ecological capacity?

1.25

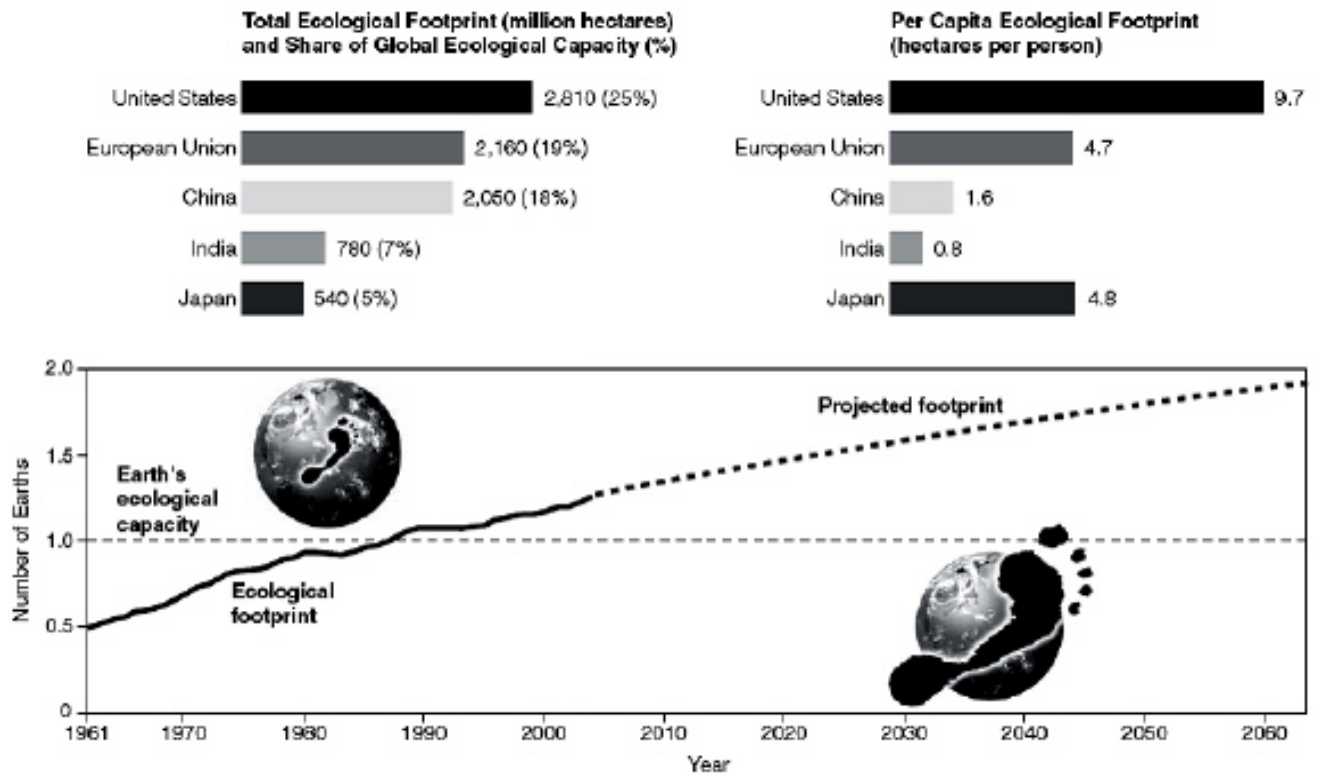
73. **Critical Thinking**



What will happen if humanity's ecological footprint continues to be greater than Earth's ecological capacity?

Humans will destroy their environment, more and more animal and plant species will be lost, poverty and disease will increase, etc.

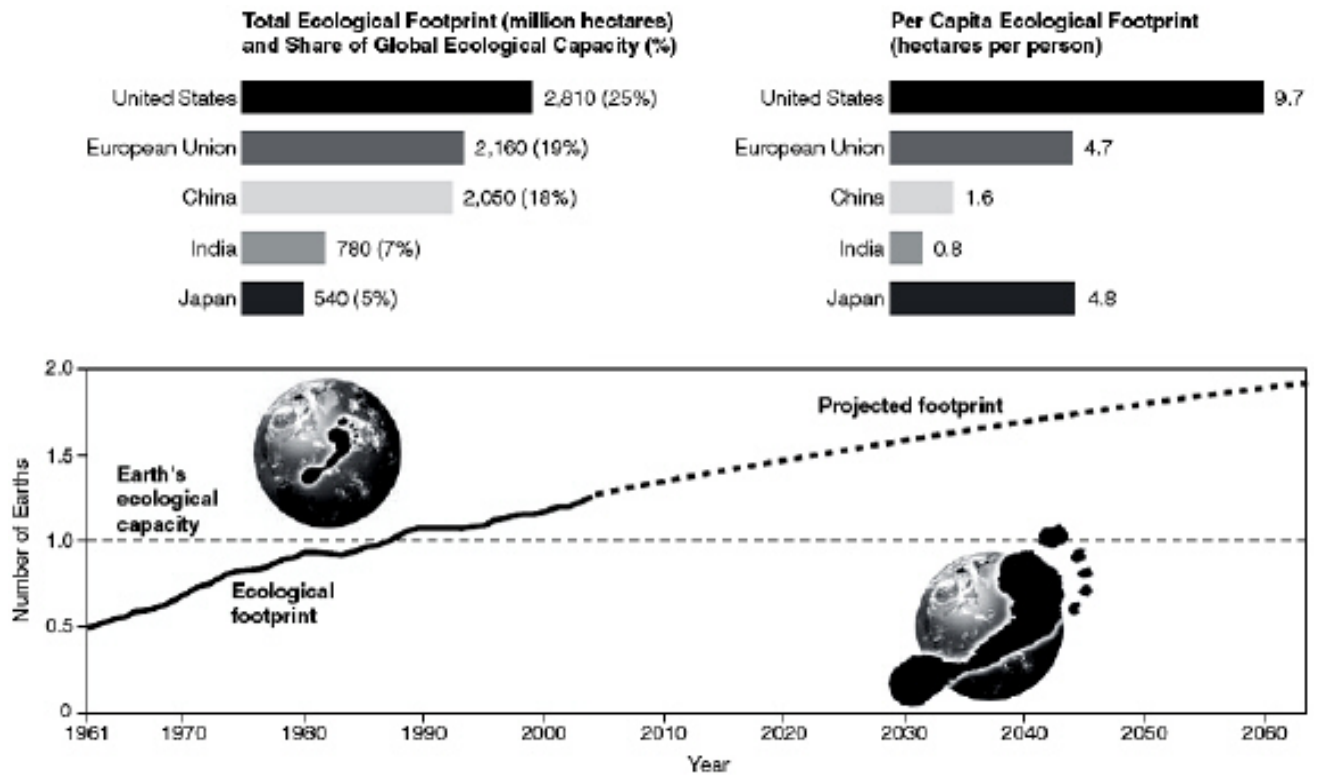
74. **Critical Thinking**



Is China's total ecological footprint greater than that of India's?

yes

75. **Critical Thinking**



What does the difference in ecological footprint between China and India mean?

China's overall effect on the environment is more severe than that of India's.

76. What are the 5 basic causes of environmental problems?

"population growth, wasteful and unsustainable resource use, poverty, failure to include the environmental costs of goods and services in their market prices, and too little knowledge of how nature works."

77. Describe the environmental wisdom worldview and provide an example.

"we are part of and totally dependent upon nature and that nature exists for all species, not just us. It also calls for encouraging environmentally friendly forms of economic growth and development and discouraging Earth-degrading forms. Our success depends on learning how life on Earth sustains itself and on integrating *environmental wisdom* into the ways we think and act." Examples will vary.

78. List the four scientific principles of sustainability and give an example of each.

Reliance on solar energy, biodiversity, population control, and nutrient cycling. Examples will vary.