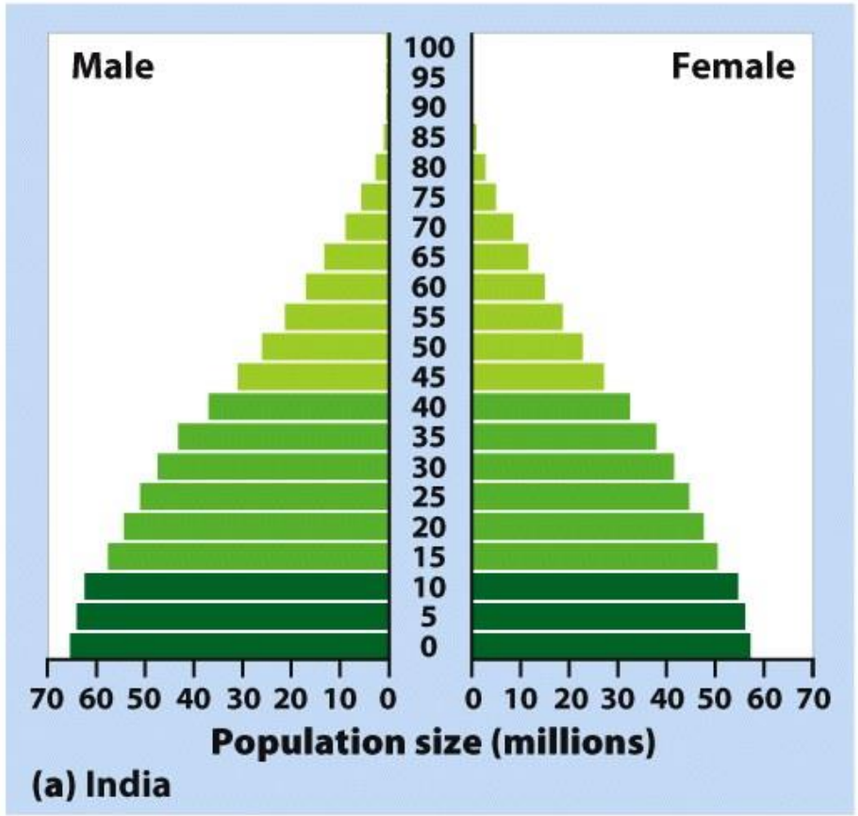
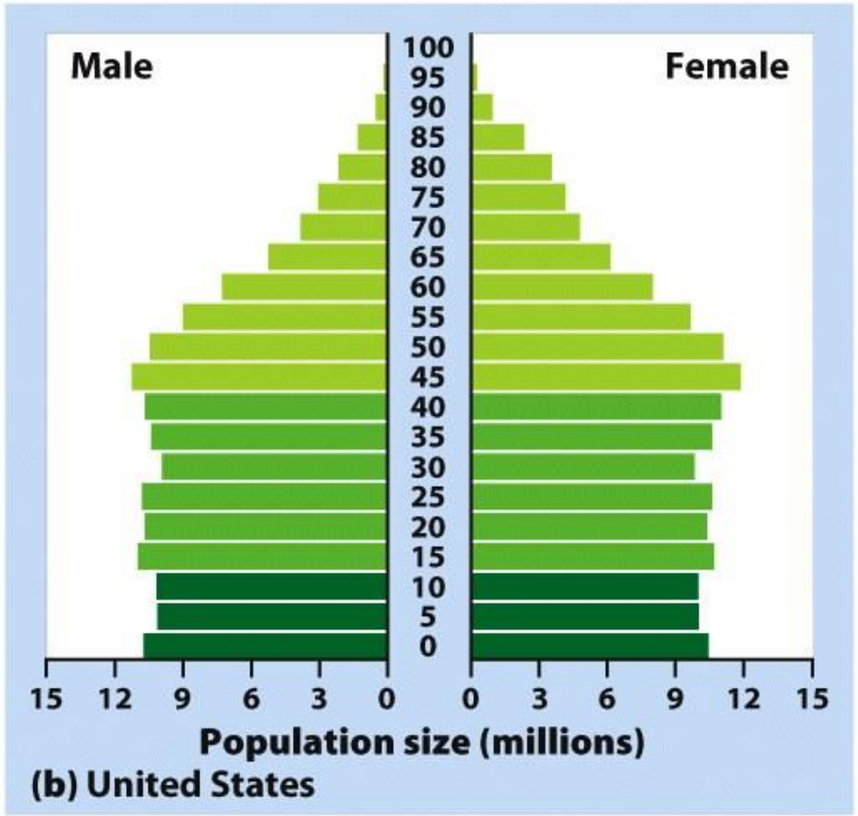
Unit 5

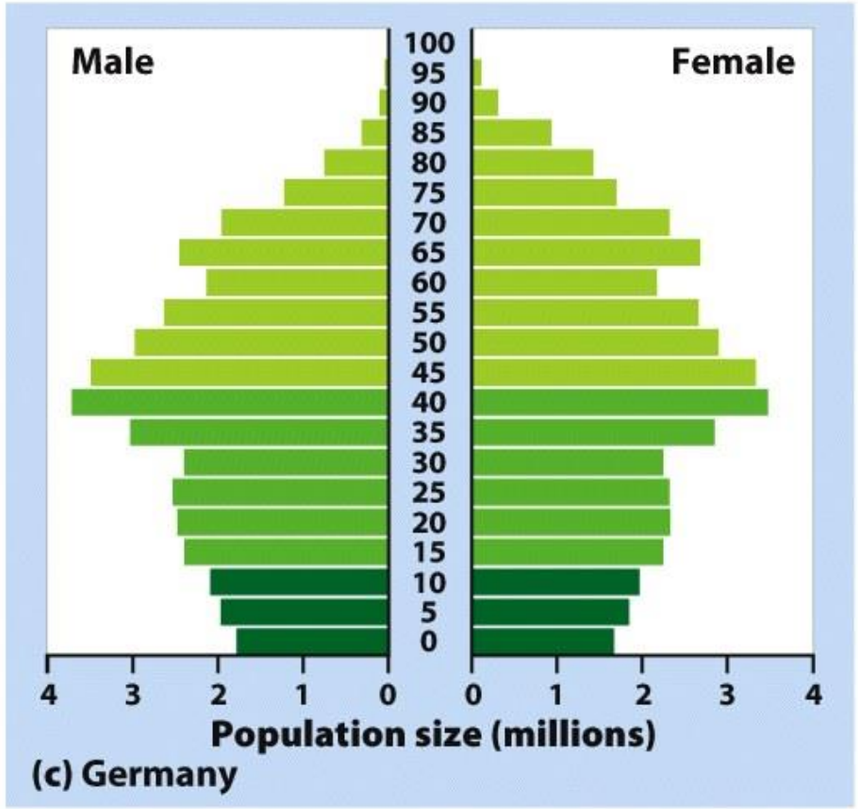
The Human Population Part 2

Age Structure

- Age structure diagrams (population pyramids)- visual representations of age structure within a country for males and females.
- As shown in figure 7.8







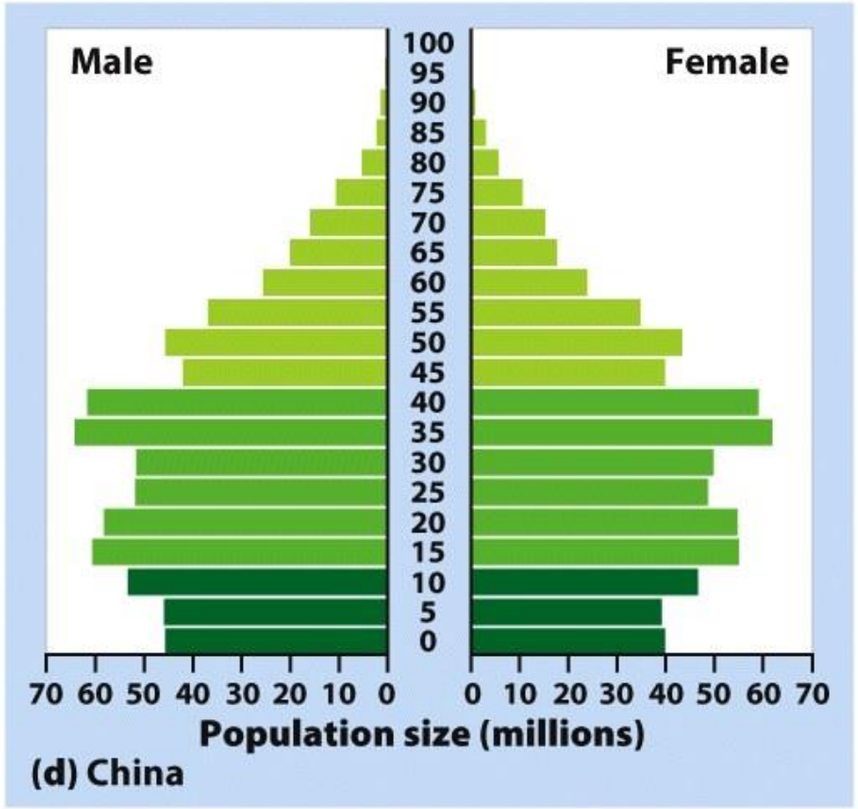


Figure 7.8

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The Demographic Transition

- The theory of the demographic transition is the theory that as a country moves from a subsistence economy to industrialization and increased affluence, it undergoes a predictable shift in population growth.

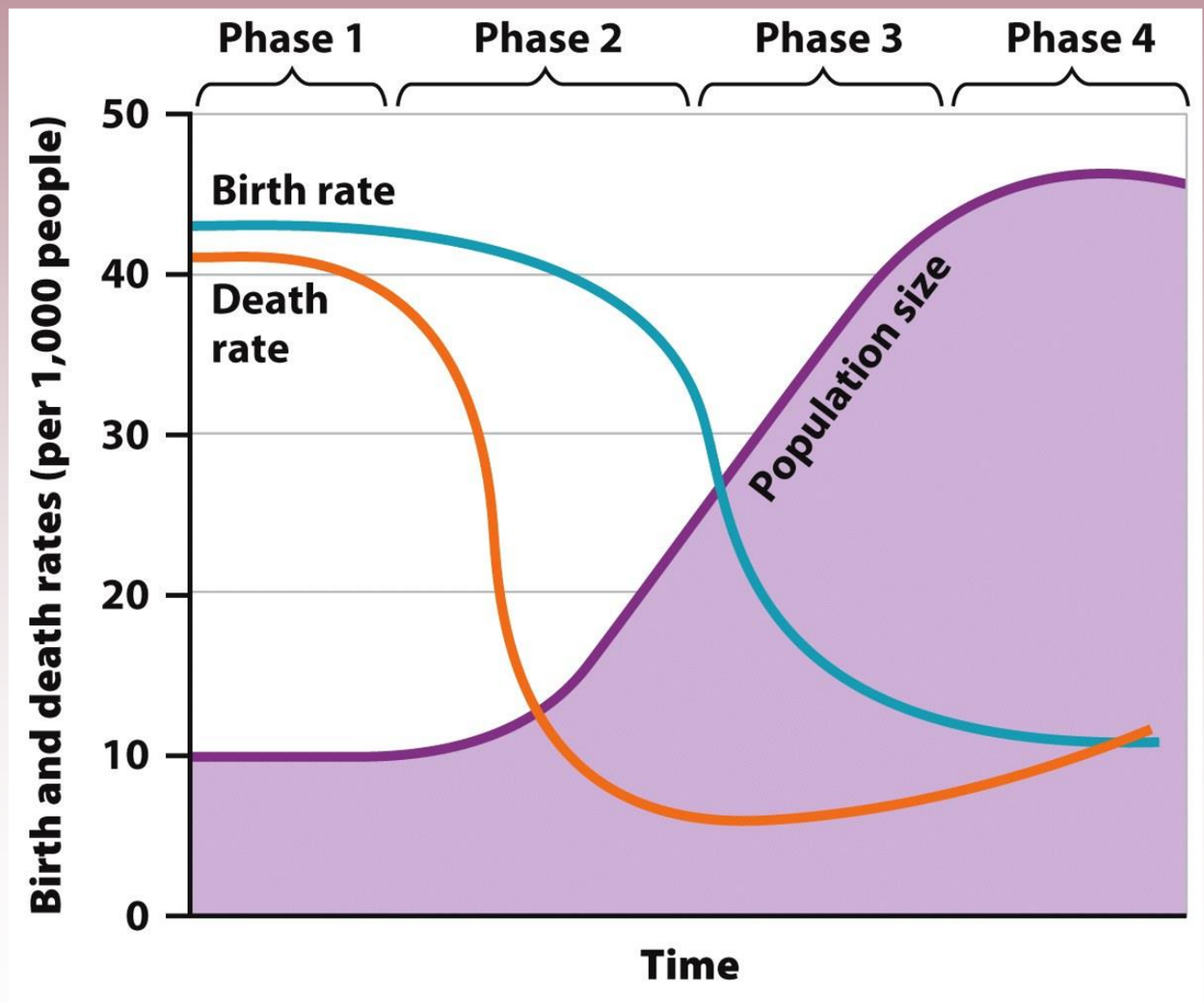

Figure 7.9
Environmental Science

The Stages of the Demographic Transition

- Phase 1: Slow population growth because there are high birth rates and high death rates which offset each other.
- Phase 2: Rapid population growth because birth rates remain high but death rates decline due to better sanitation, clean drinking water, increased access to food and goods, and access to health care.
- Phase 3: Stable population growth as the economy and educational system improves and people have fewer children.
- Phase 4: Declining population growth because the relatively high level of affluence and economic develop encourage women to delay having children.

Family Planning

- Family planning- the regulation of the number or spacing of offspring through the use of birth control.

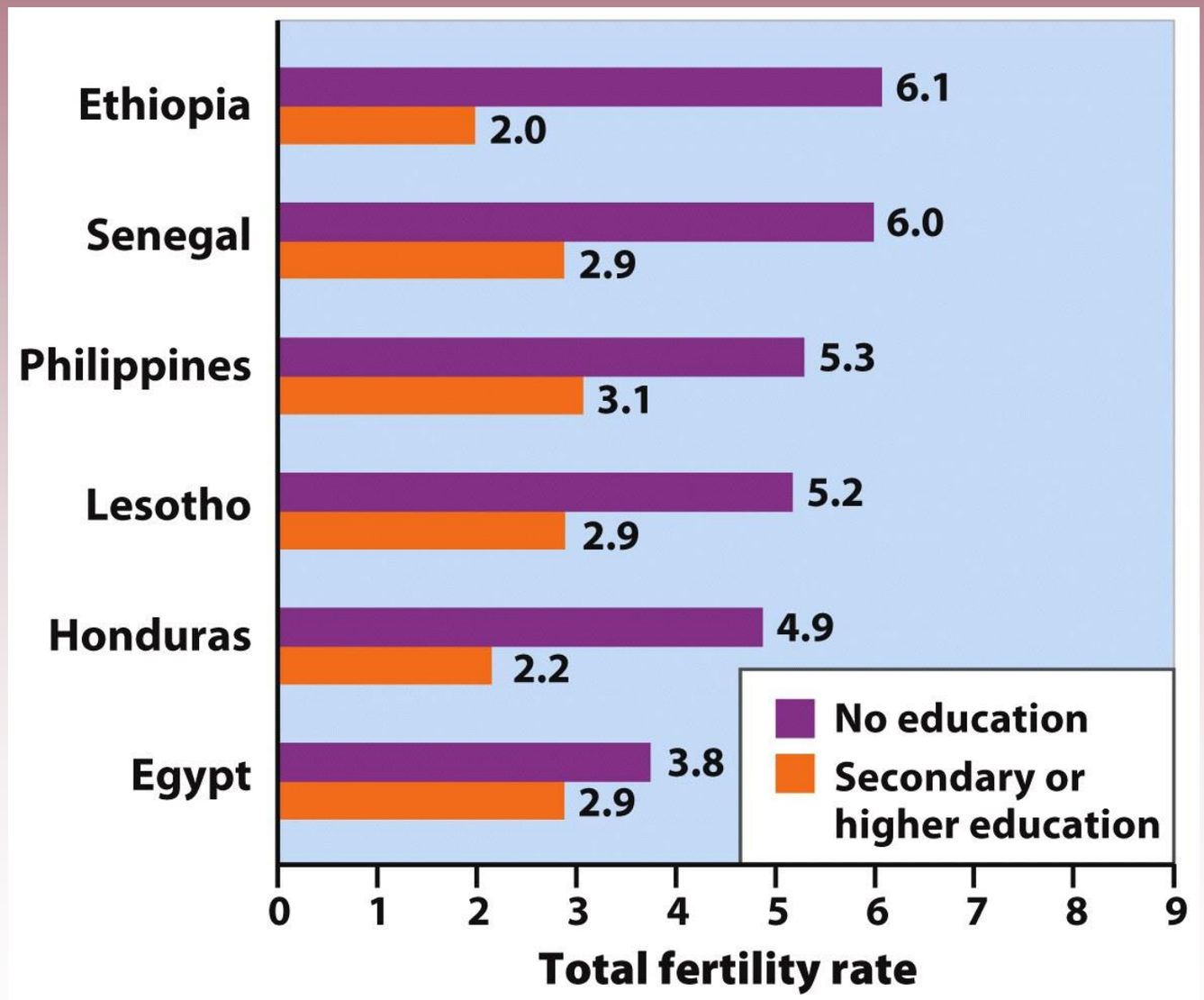

Figure 7.12
Environmental Science

The 12 Most Populous Countries in the World

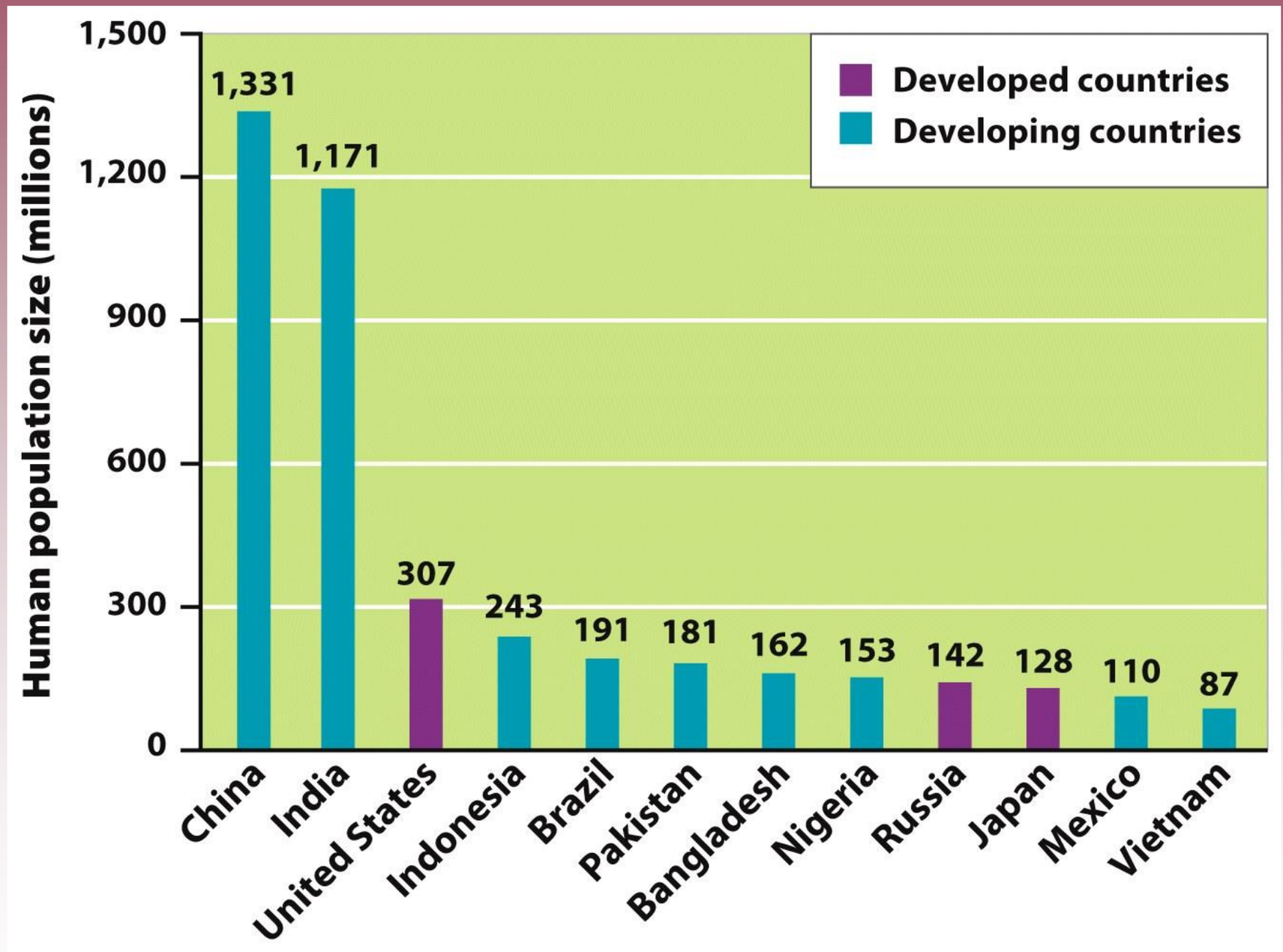

Figure 7.13
Environmental Science

The relationship between economic development and population growth rate for developing nations.

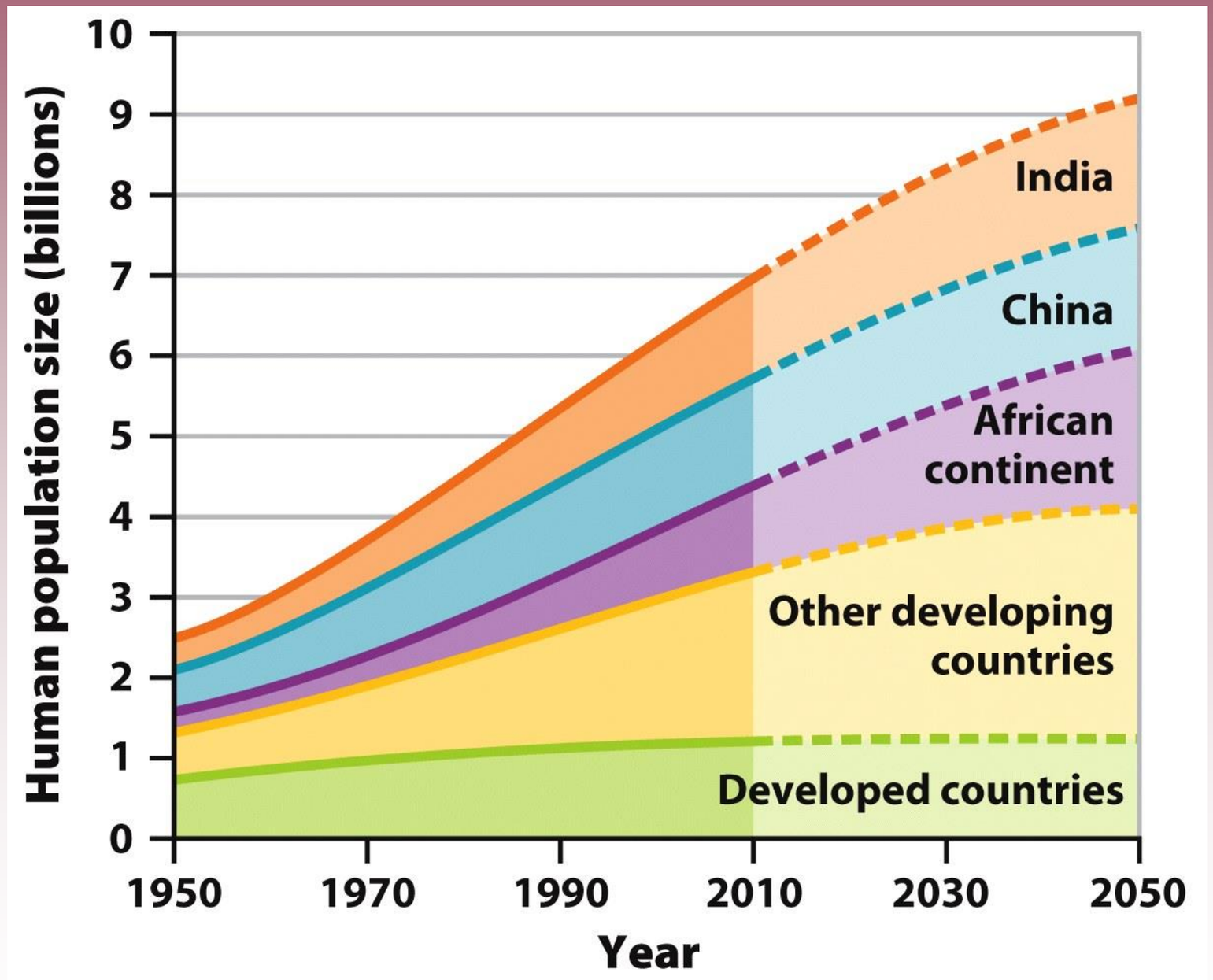

Figure 7.14
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Ecological Footprints

- **Affluence** - having a lot of wealth such as money, goods, or property.

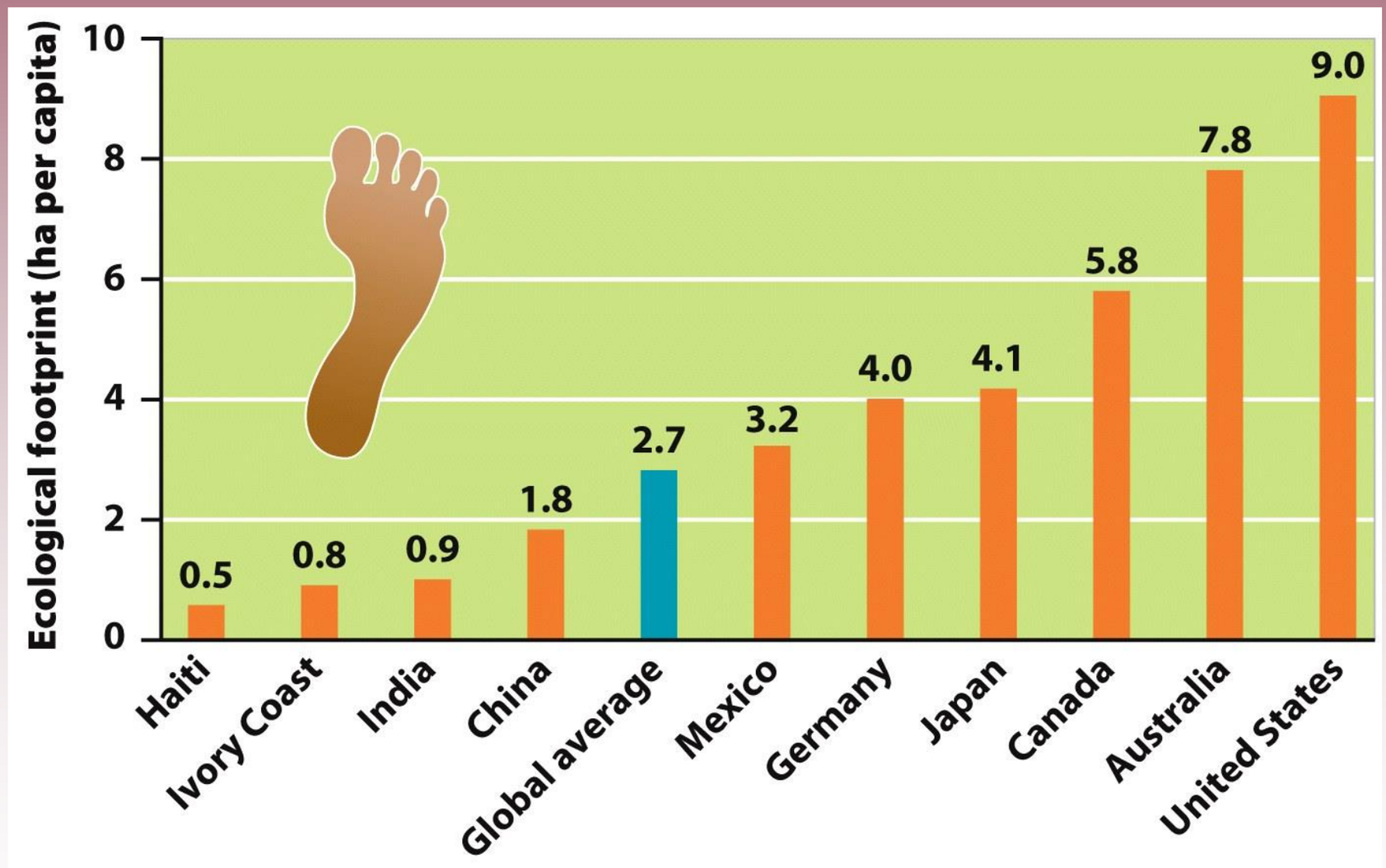

Figure 7.15
Environmental Science

The IPAT Equation

- To estimate the impact of human lifestyles on Earth we can use the IPAT equation:
- Impact= **P**opulation X **A**ffluence X **T**echnology

Figure 7.16a
Environmental Science

Figure 7.16b
Environmental Science

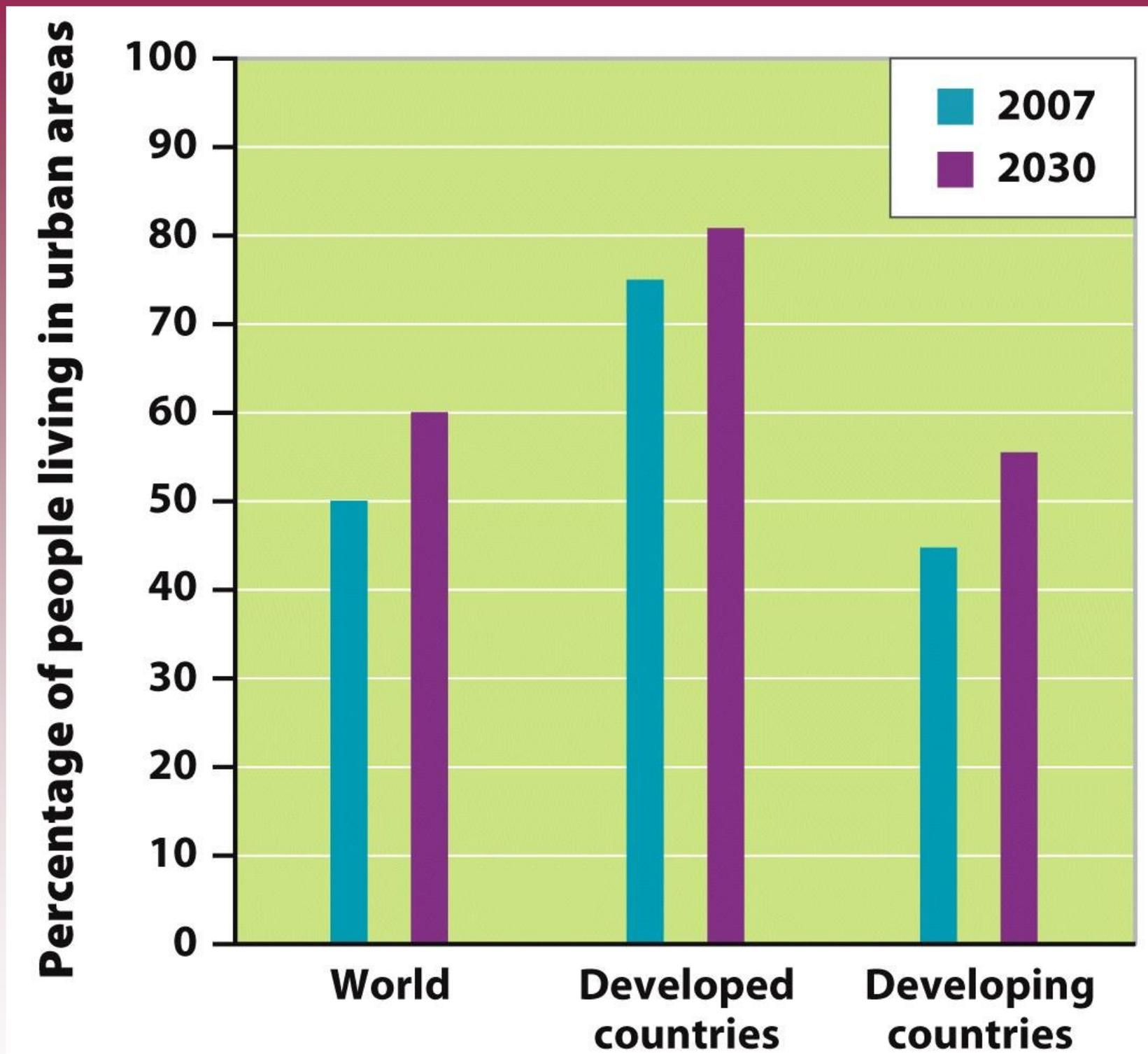

Figure 7.18
Environmental Science

TABLE 7.1 The 20 largest urban areas in the world

Rank	City, country	Population (millions)
1	Tokyo, Japan	35.7
2	New York–Newark, United States	19.0
3	Mexico City, Mexico	19.0
4	Mumbai, India	19.0
5	São Paulo, Brazil	18.9
6	Delhi, India	16.0
7	Shanghai, China	15.0
8	Kolkata, India	14.8
9	Dacca, Bangladesh	13.5
10	Buenos Aires, Argentina	12.8
11	Los Angeles–Long Beach–Santa Ana, United States	12.5
12	Karachi, Pakistan	12.1
13	Cairo, Egypt	11.9
14	Rio de Janeiro, Brazil	11.8
15	Osaka–Kobe, Japan	11.3
16	Beijing, China	11.1
17	Manila, Philippines	11.1
18	Moscow, Russia	10.4
19	Istanbul, Turkey	10.0
20	Paris, France	9.90

Source: **United Nations Population Division.**
Note: **Data are from 2007 and contain the areas defined by the United Nations as "urban agglomerations."**

Table 7.1
Environmental Science

The Impact of Affluence

- Gross domestic product (GDP)- the value of all products and services produced in a year in that country.
- GDP is made up of consumer spending, investments, government spending, and exports minus imports.
- A countries GDP often correlates with its pollution levels.