36. Human Disturbance of Communities and Ecosystems *(Chapters 51, 52, 54, 55)*

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I. Introduction *(1243-1247)*

A. Oddities of Human Ecology

1. Exponential population growth – constantly

2. Top predator – top predator everywhere, hunt for sport

3. Efficient hunting / Inefficient use of prey – tool, cooperation

4. Production of wastes – produce immense quantities of novel waste products

# B. Human Disturbance of Ecosystems

-Addition of material

-Removal of material (habitat restriction)

-Changing the transfer rates between bit nutrient pools

II. Cultural (Anthropogenic) Eutrophication of Aquatic Habitats *(1212-1213, 1283-1285)*

-Nutrient enrichment

A. Sources of Materials

-Agriculture – farmers fertilize (add limiting nutrients), irrigate (aquifer)

B. Consequences of Aquatic Pollution

1. Major pollutants

2. Human waste = fertilizer

3. Results of eutrophication

C. Eutrophication of Lake Erie

1. Background

2. History of pollution

3. Ecological effects of pollution

4. Biological, recreational, economic importance

### III. Deforestation *(1310-1311)*

A. Clearing of Tropical Rain Forests

1. Uniqueness of the biome

2. Ecological implications of large standing biomass

3. Effects of shifting agriculture

B. Desertification

### IV. Atmospheric Pollution *(1295-1297, 1301-1305, 1315-1316)*

A. Combustion of Fossil Fuels

1. Natural carbon pools

2. Incomplete combustion of fossil fuels: air pollution

3. Disruption of transfer rates among pools

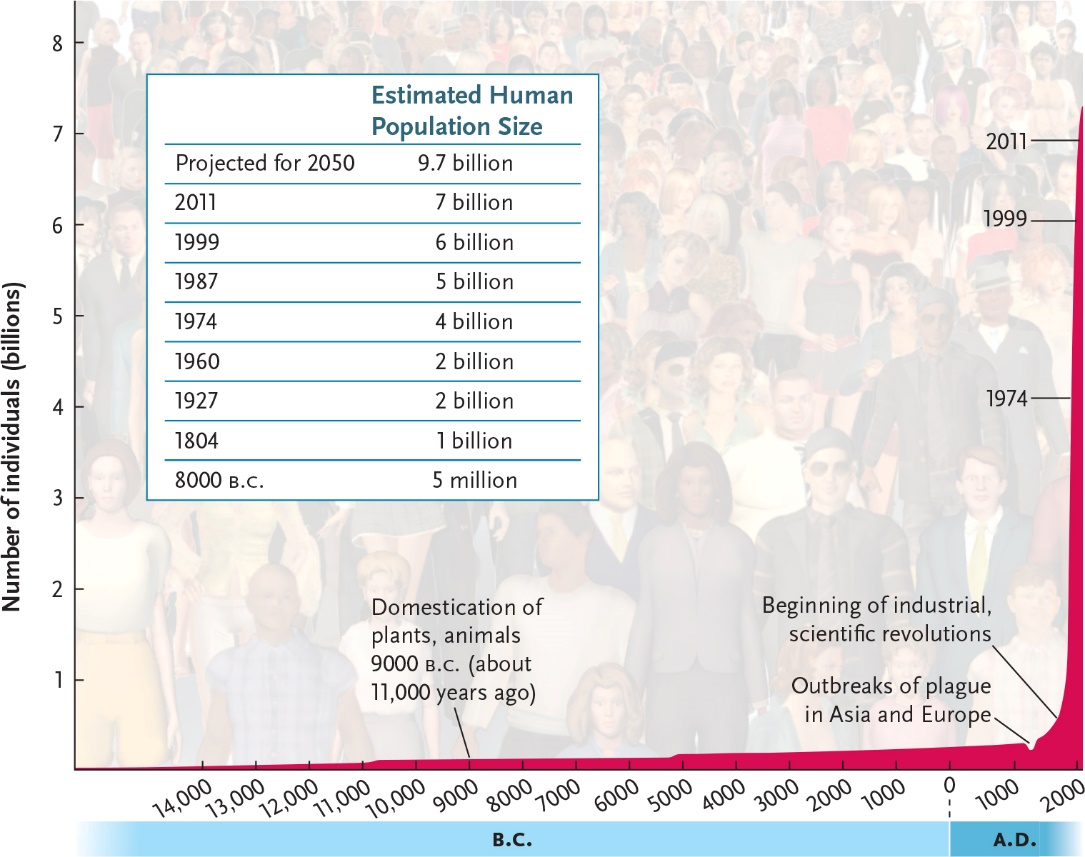
B. The Greenhouse Effect and Global Warming

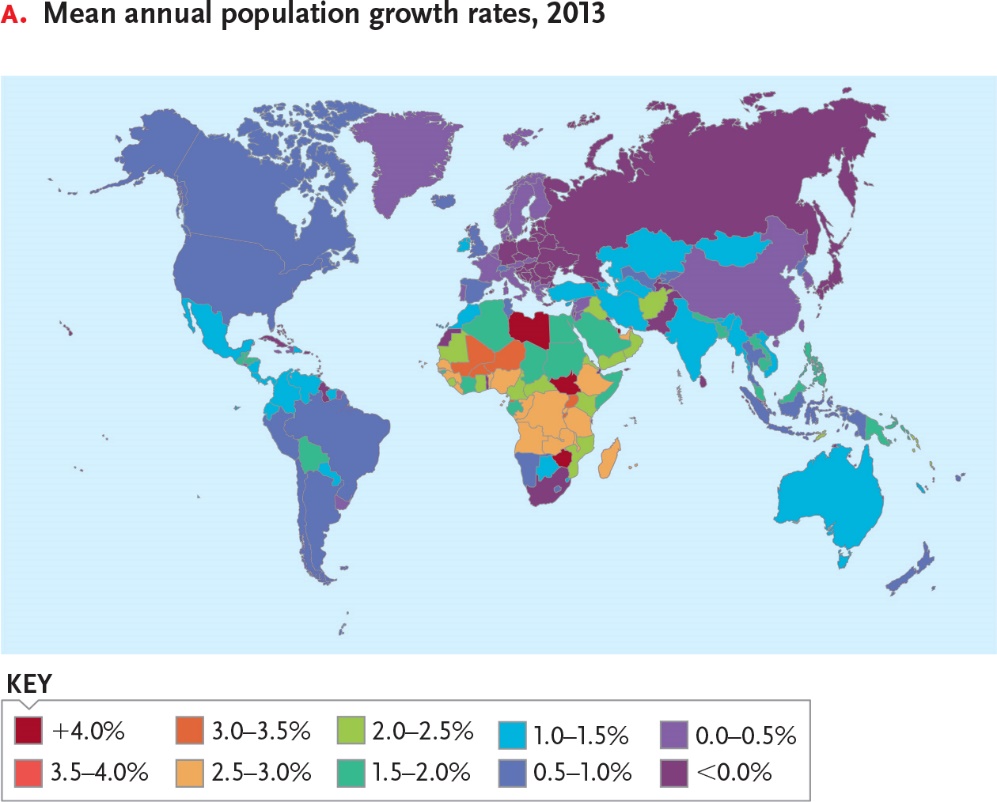
1. Rising CO2 levels and temperature trends

2. Consequences of warming

C. Acid Precipitation

36-1





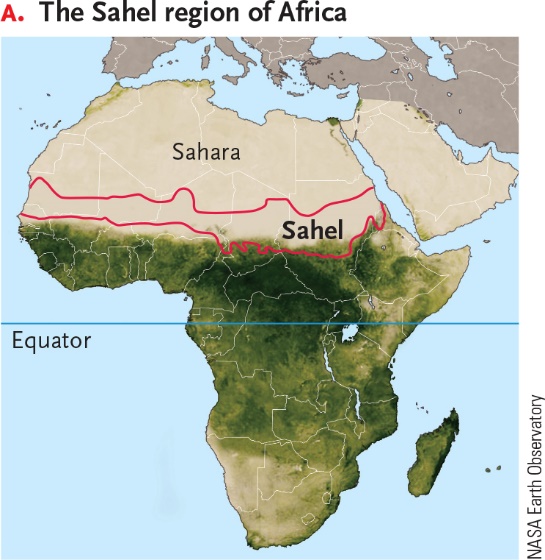
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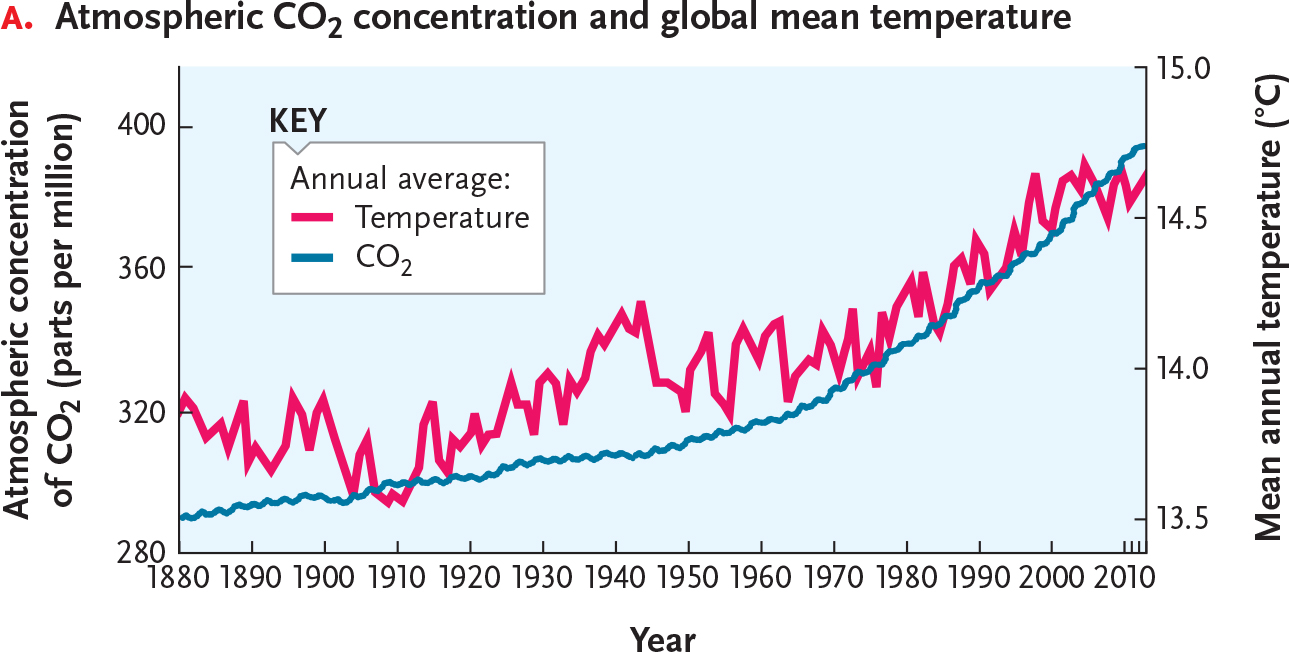
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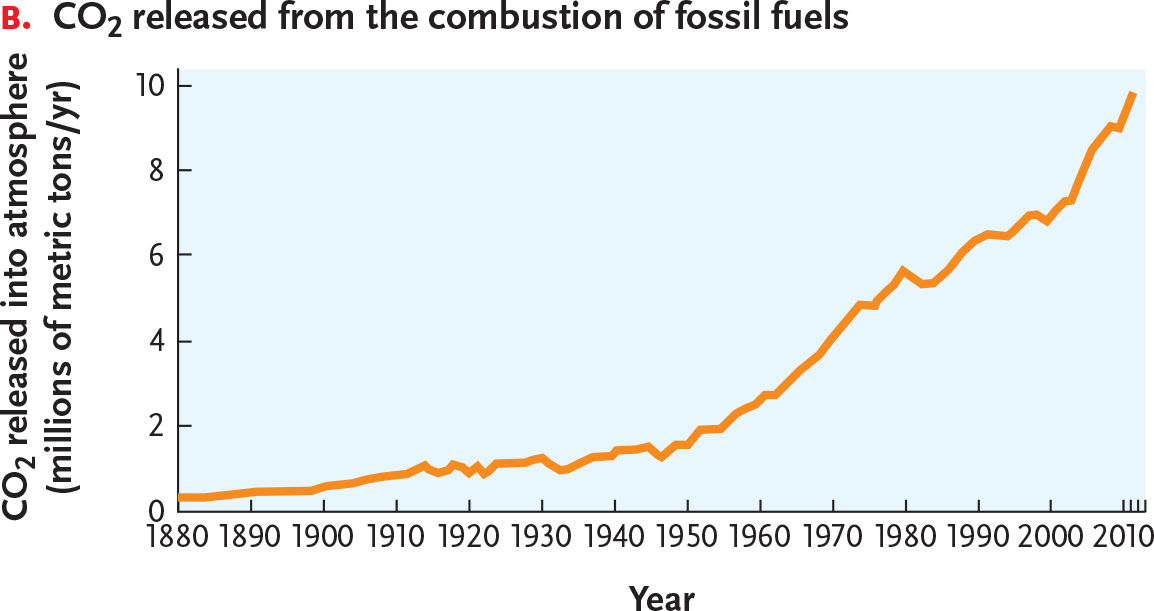
 

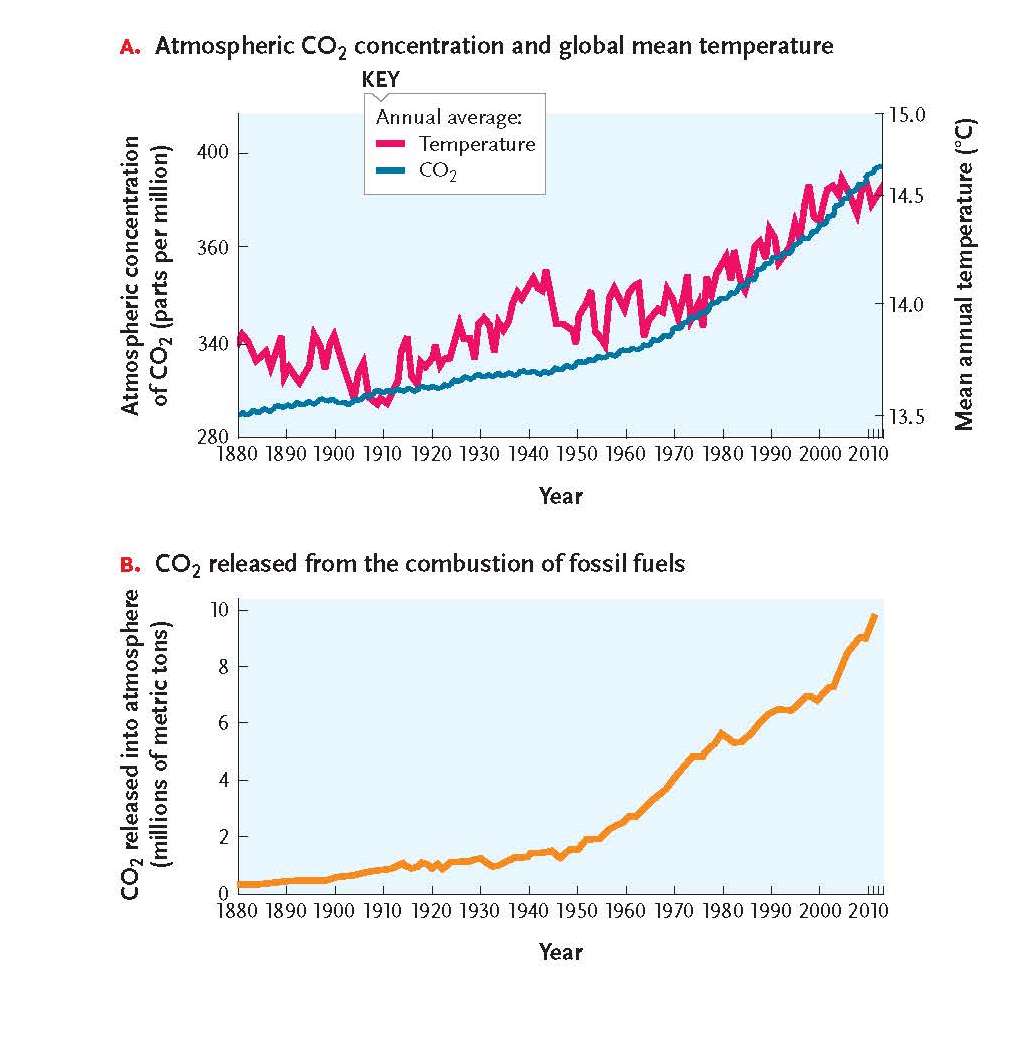
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