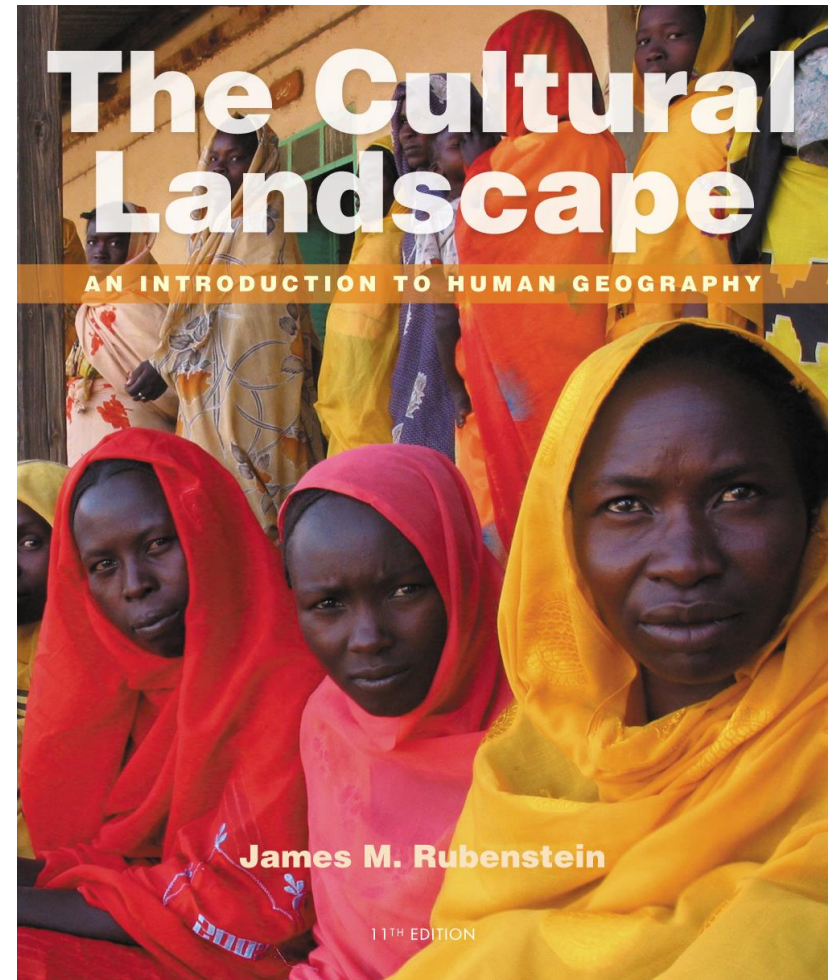


# The Cultural Landscape

Eleventh Edition

## Development

Matthew Cartlidge  
University of Nebraska-Lincoln



# Key Issues

- Why does development vary among countries?
- Why does development vary by gender?
- Why is energy important for development?
- Why do countries face obstacles to development?

# Learning Outcomes

- 9.1.1: Identify the HDI standard of living factor.
- 9.1.2: Identify the HDI health factor.
- 9.1.3: Identify the HDI access to knowledge factor.
- 9.1.4. Describe variations in level of development within countries and regions.
- 9.2.1: Describe the UN's measures of gender inequality.
- 9.2.2: Describe the changes since the 1990s in gender inequality.

# Learning Outcomes

- 9.3.1: Explain the principal sources of demand for fossil fuels.
- 9.3.2: Describe the distribution of production of the three fossil fuels.
- 9.3.3: Analyze the distribution of reserves of fossil fuels and differentiate between proven and potential resources.

# Learning Outcomes

- 9.3.4: Describe the role of OPEC and changes in the price and availability of petroleum.
- 9.3.5: Describe the distribution of nuclear energy and challenges in using it.
- 9.3.6: Identify challenges to increasing the use of alternate energy sources.
- 9.3.7: Compare and contrast between passive and active solar energy.

# Learning Outcomes

- 9.4.1: Summarize the two paths to development.
- 9.4.2: Describe shortcomings of the two development paths and reasons international trade has triumphed.
- 9.4.3: Explain the main sources of financing development.
- 9.4.4: Explain problems with financing development in developing and developed countries.

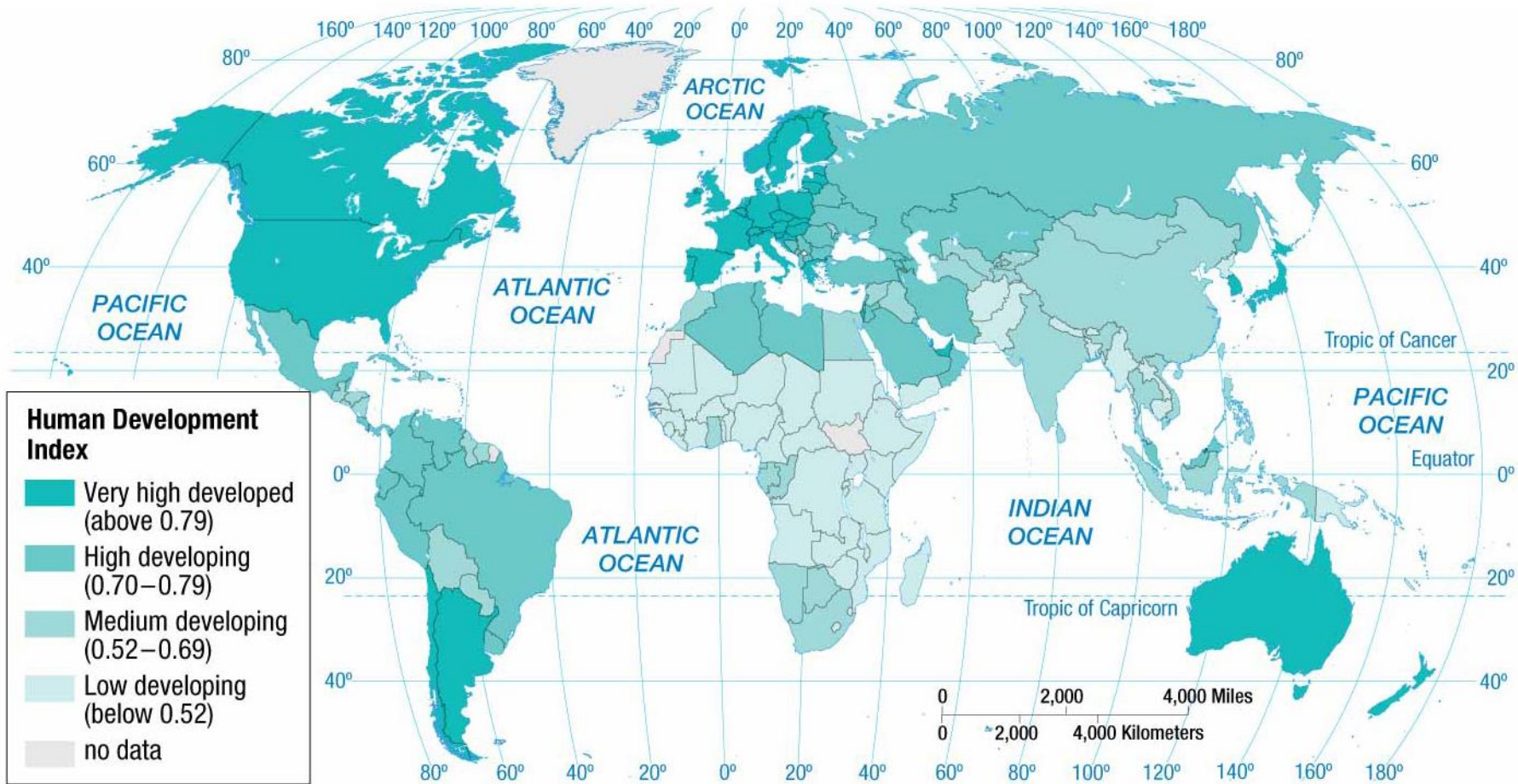
# Learning Outcomes

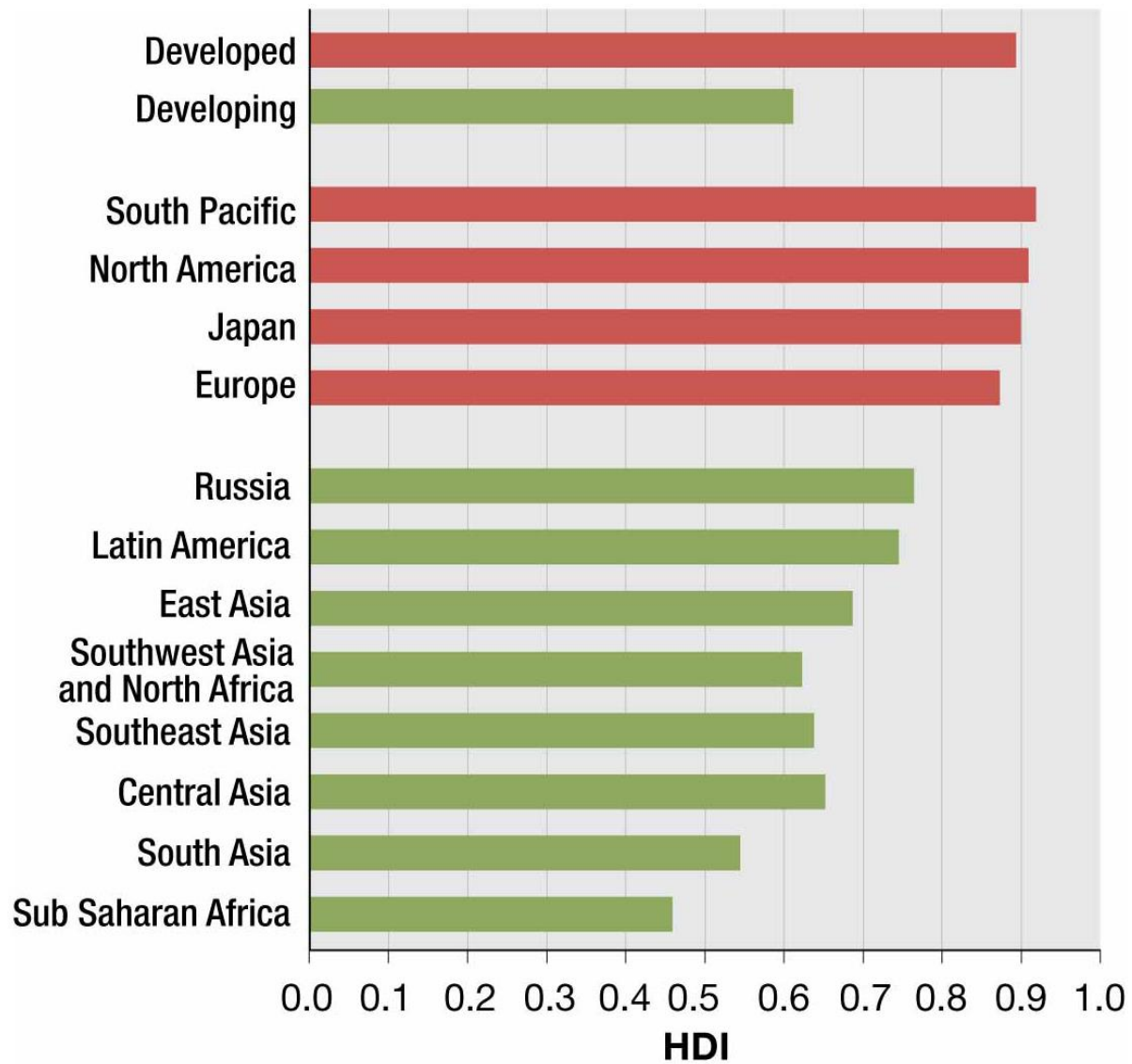
- 9.4.5: Explain the principles of fair trade.
- 9.4.6: Describe ways in which differences in development have narrowed or stayed wide.

# Why Does Development Vary among Countries?

- United Nations (UN) developed a metric to measure the level of development of every country called the *Human Development Index (HDI)*.
  - It is based on three factors:
    1. Decent standard of living
    2. Long and healthy life
    3. Access to knowledge
  - Countries group into 4 classes
    - Level of development ranging from developed (Very High) to developing (Low).

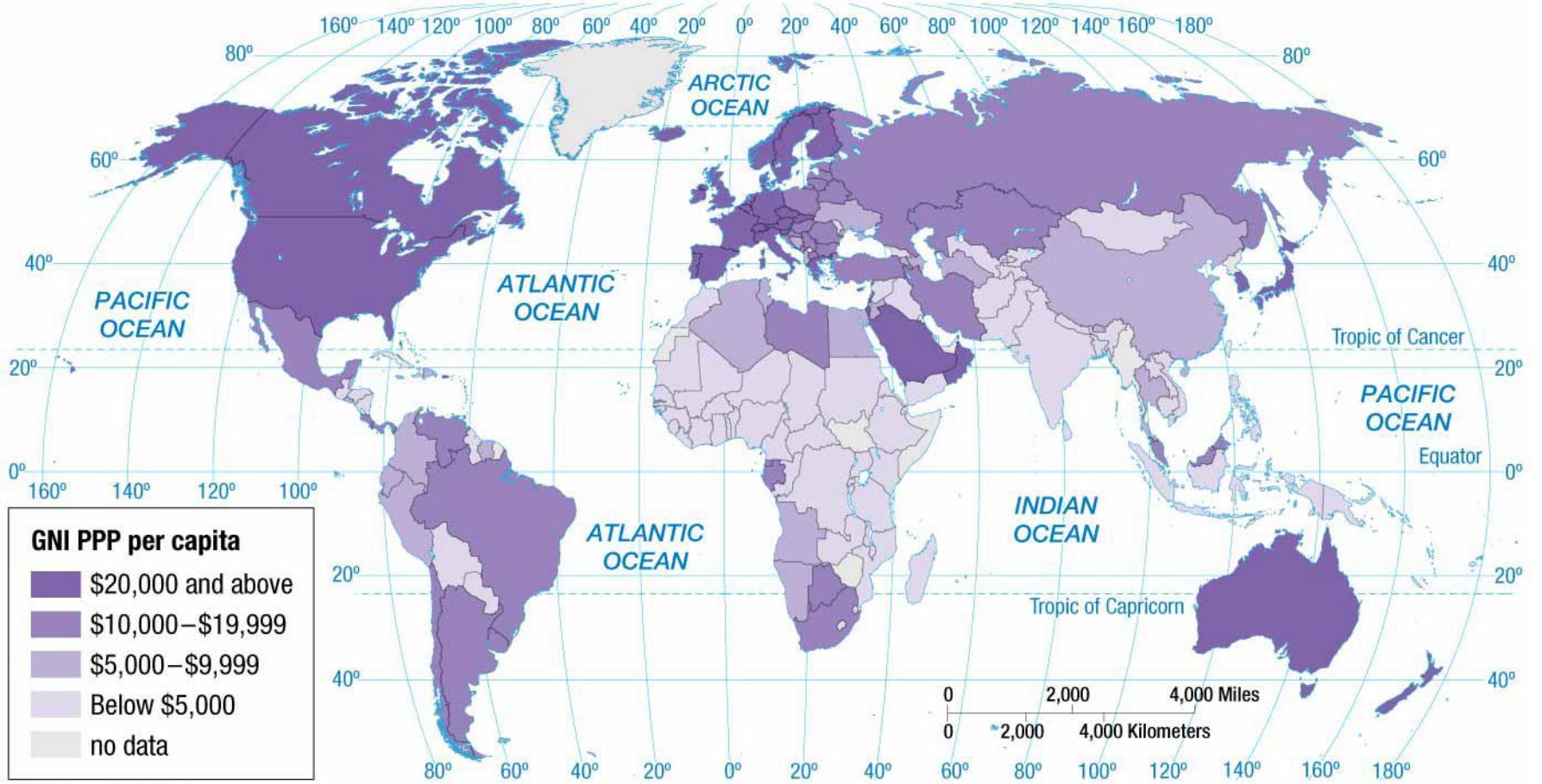






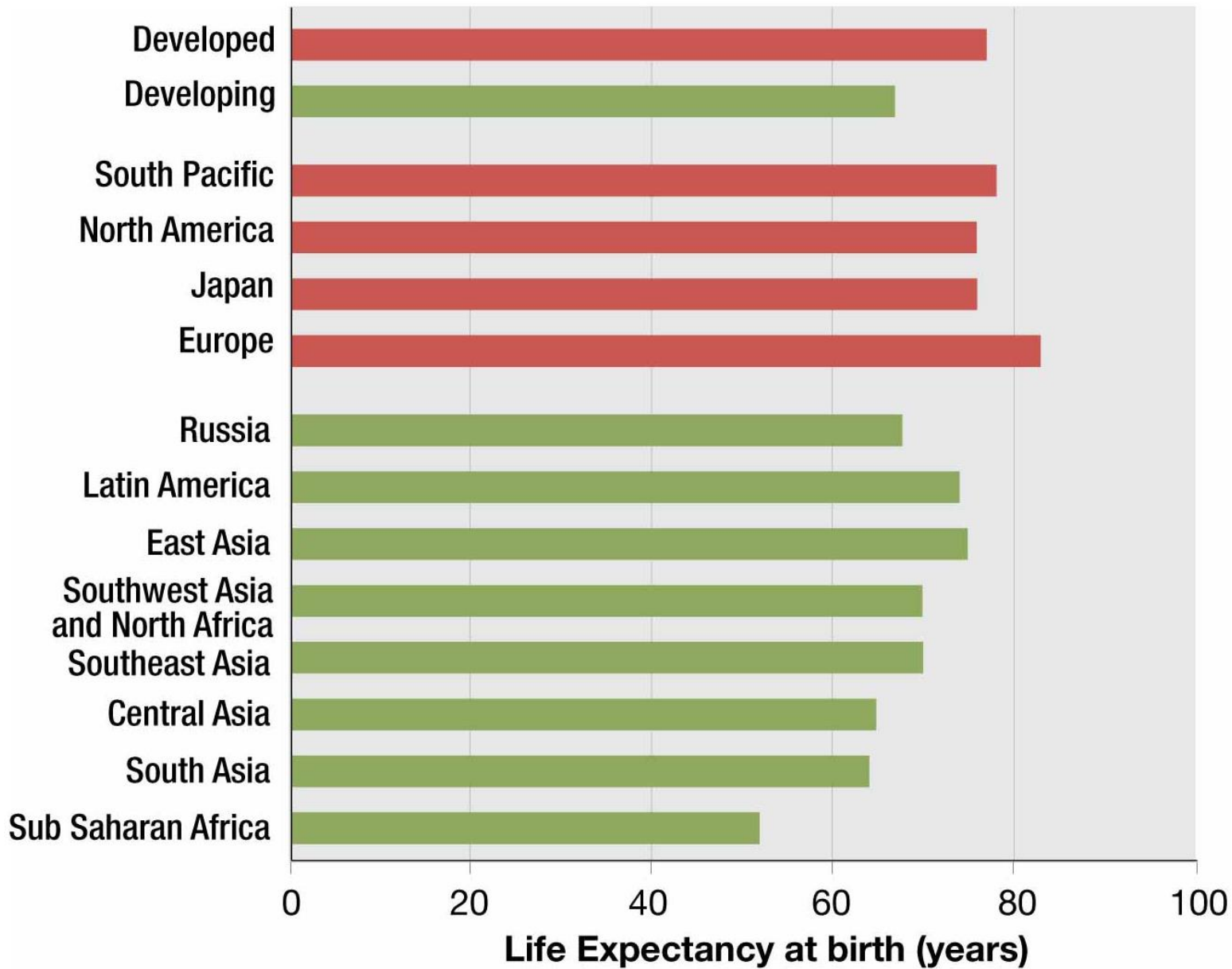
# Why Does Development Vary among Countries?

- A Decent Standard of Living
  - UN measures standard of living based on two functions:
    1. Gross national income (GNI)
      - Value of the output of goods and services produced in a country annually, including money that leaves and enters the country.
        - » *Gross domestic product (GDP)* is similar except it doesn't account for money entering and leaving the country.
      - Per capita GNI measures average (mean) wealth, not its distribution among citizens.
    2. Purchasing power parity (PPP)
      - Cost of living adjustment made to the GNI.



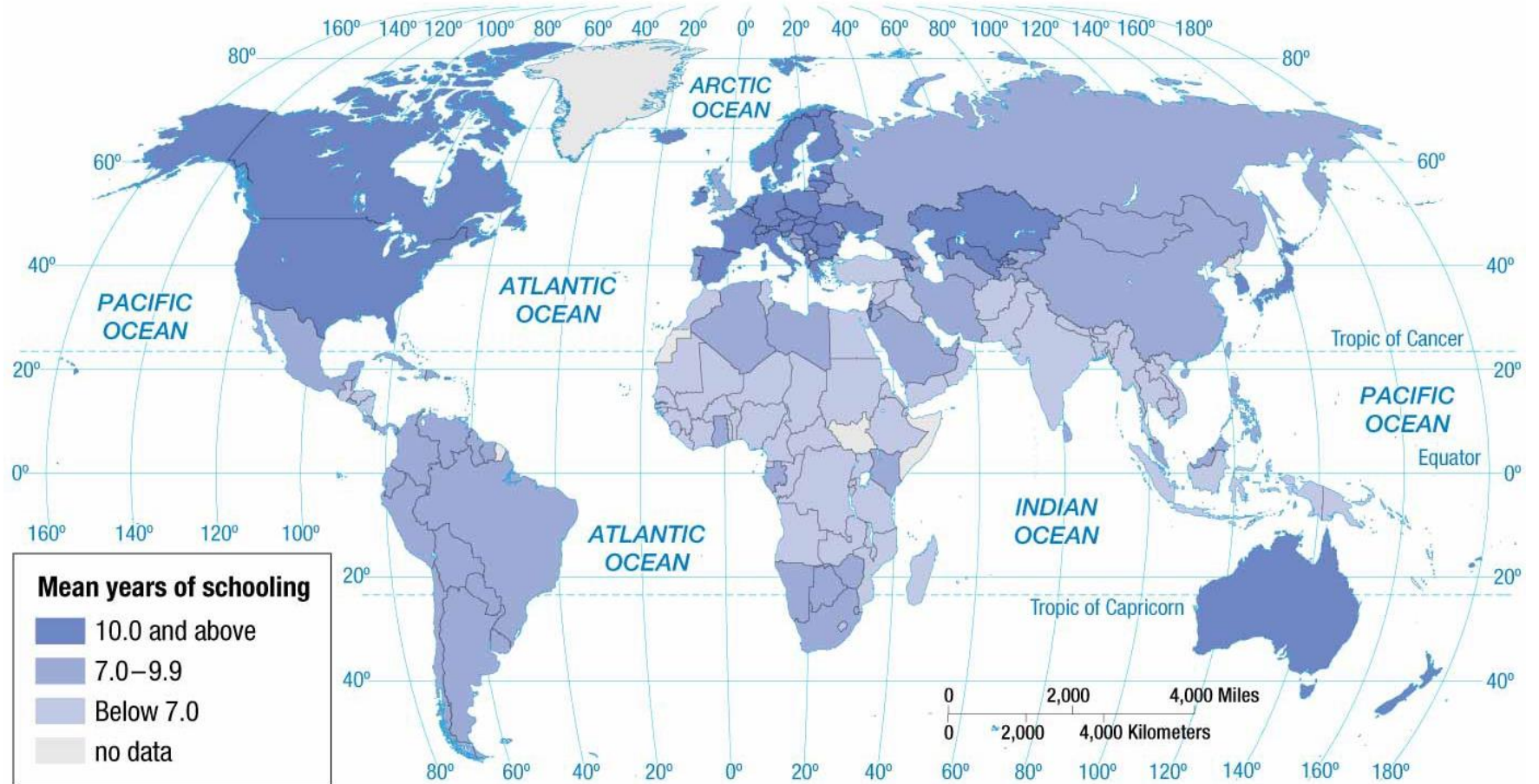
# Why Does Development Vary among Countries?

- A Long and Healthy Life
  - UN considers good health to be an important measure of development:
    - Main health indicator contribution to the HDI is life expectancy at birth.
      - Average life expectancies of a baby
        - » Global average: 70 years
        - » Developed country: 80 years
        - » Developing country: 68 years

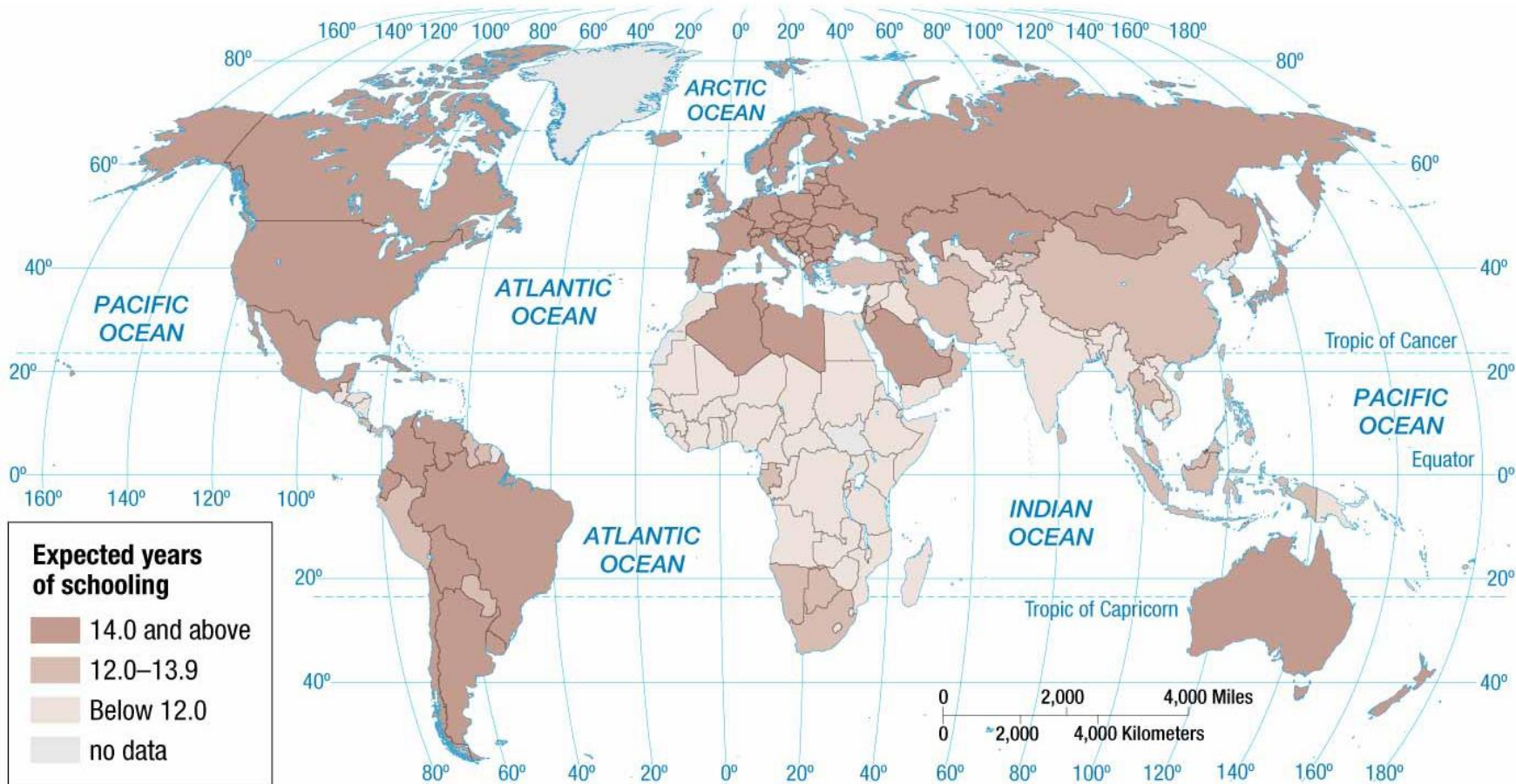


# Why Does Development Vary among Countries?

- Access to Knowledge
  - UN considers years of schooling to be the most critical measure of the ability of an individual to gain access to knowledge needed for development.
    - Quantity of Schooling
      - Average Years of schooling
        - » Global: 7 years
        - » Developing: 6 years
        - » Developed: 11 years
      - Expected years of schooling
        - » Developed: 16 years
        - » Developing: 11 years

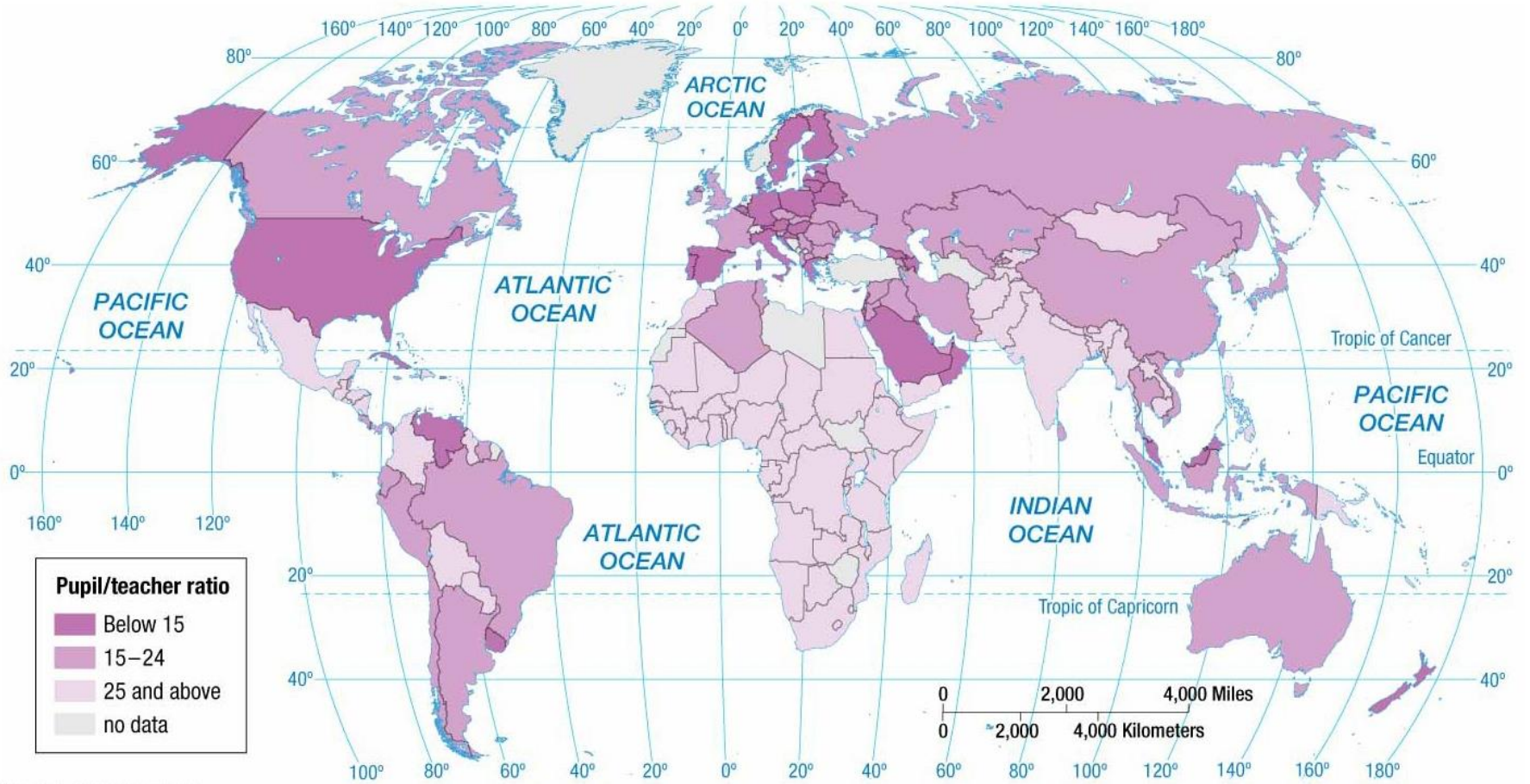


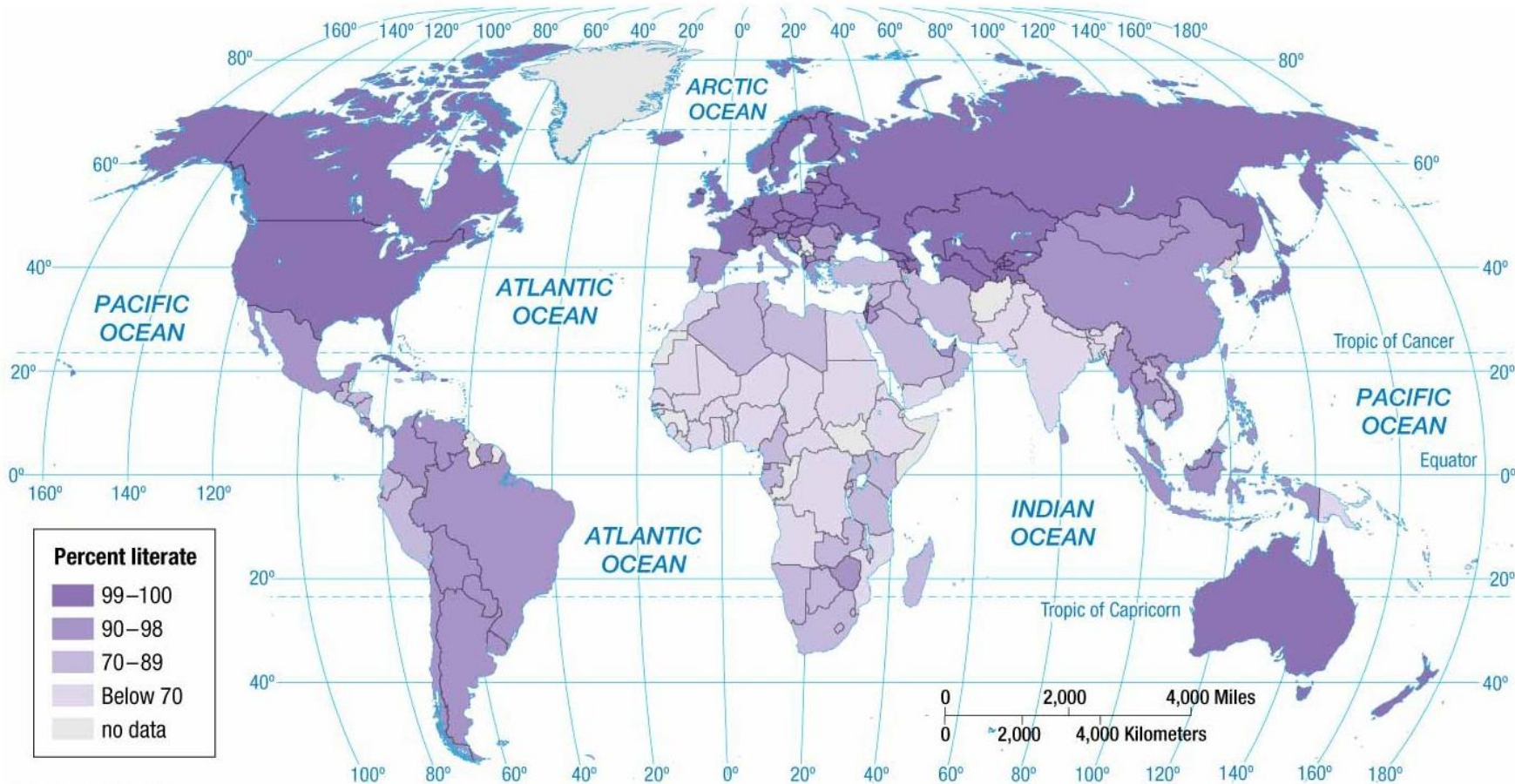




# Why Does Development Vary among Countries?

- Access to Knowledge cont'd:
  - Quality of Schooling
    - Pupil/teacher ratio
      - » Global: 24 (primary school)
      - » Developing: 26 (primary school)
      - » Developed: 14 (primary school)
    - Literacy rate
      - » Developed: >99%
      - » Developing: 70-90%





# Why Does Development Vary by Gender?

- Gender Inequality Measures

- UN created the *Gender Inequality Index (GII)* that is based on multiple metrics.

- Empowerment

- Defined: Ability of women to achieve improvements in status.

- » Percentage of seats held by women in the national legislature.

- » Percentage of women who have completed high school.

- Labor Force

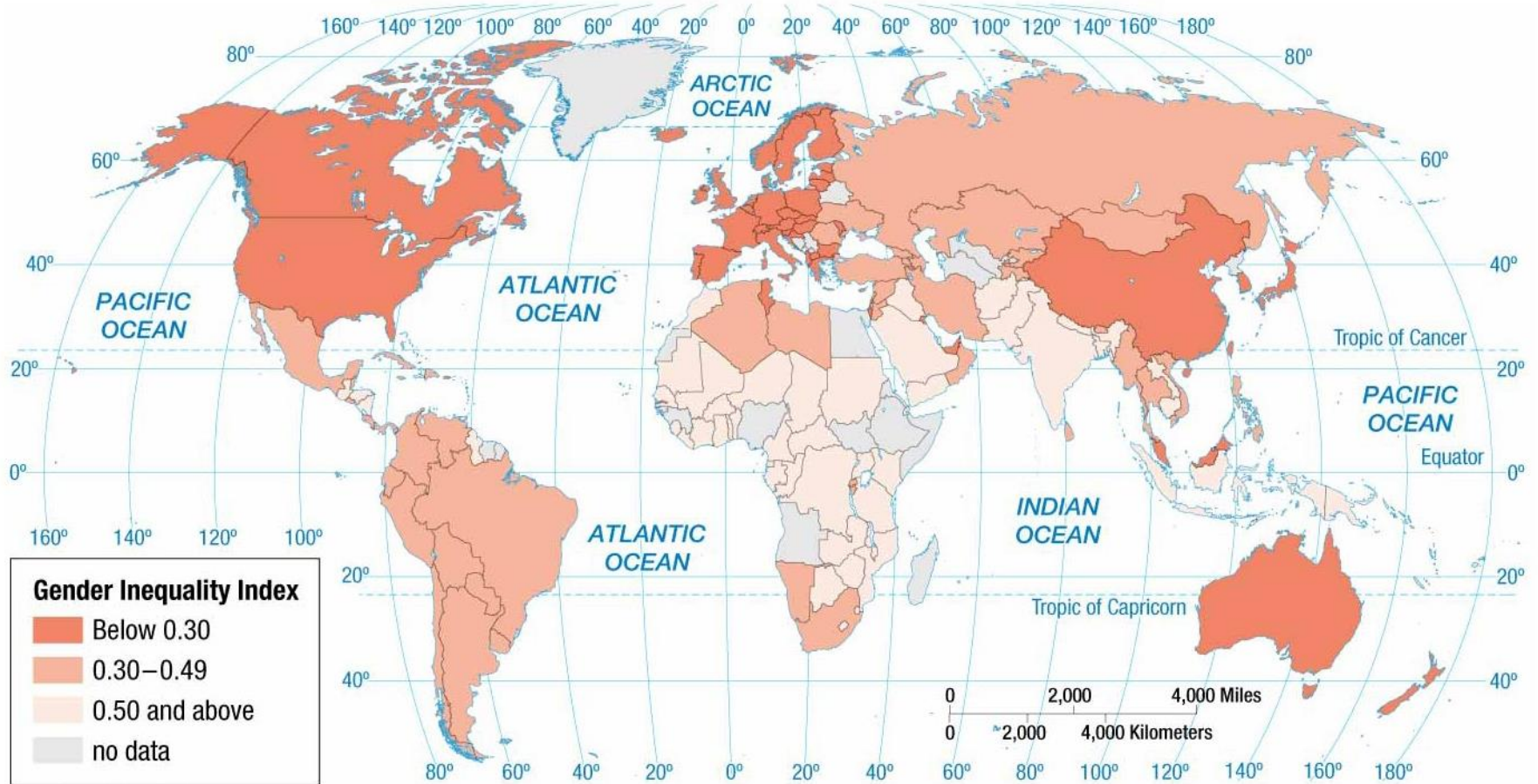
- *Female labor force participation rate* defined as percentage of women holding full-time jobs outside the home.

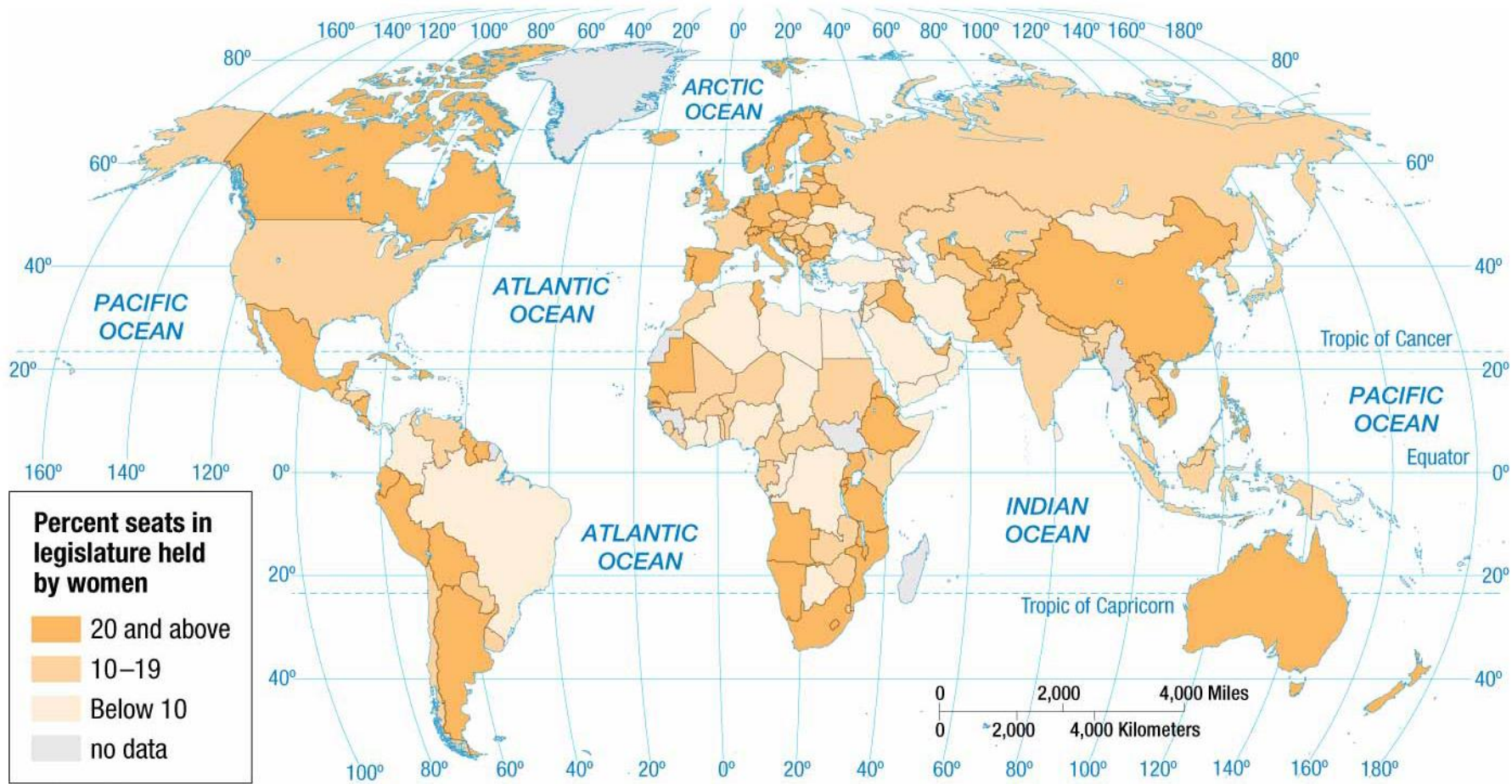
- » Highest in developed countries.

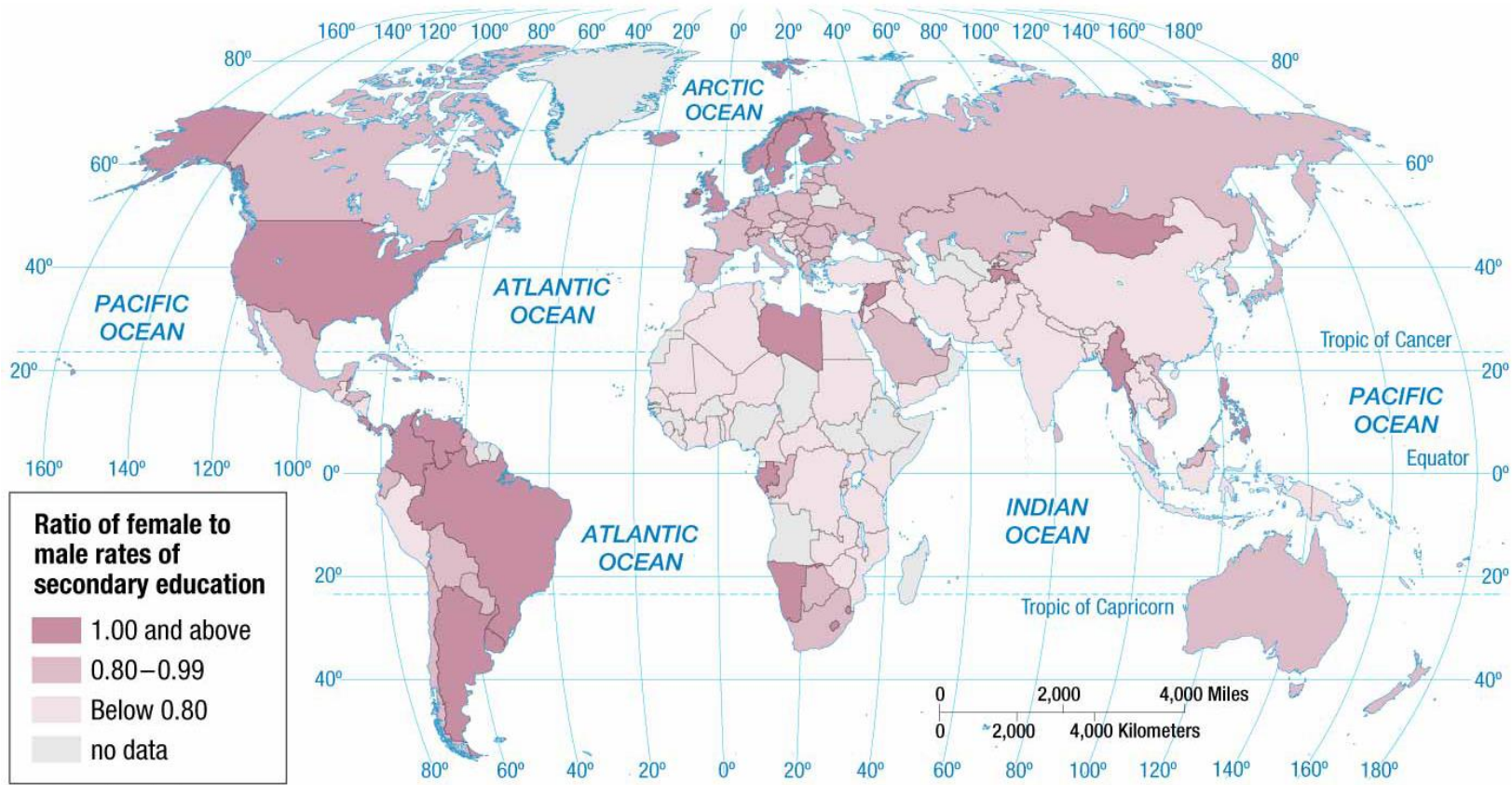
- Reproductive Health

- Maternal mortality ratio

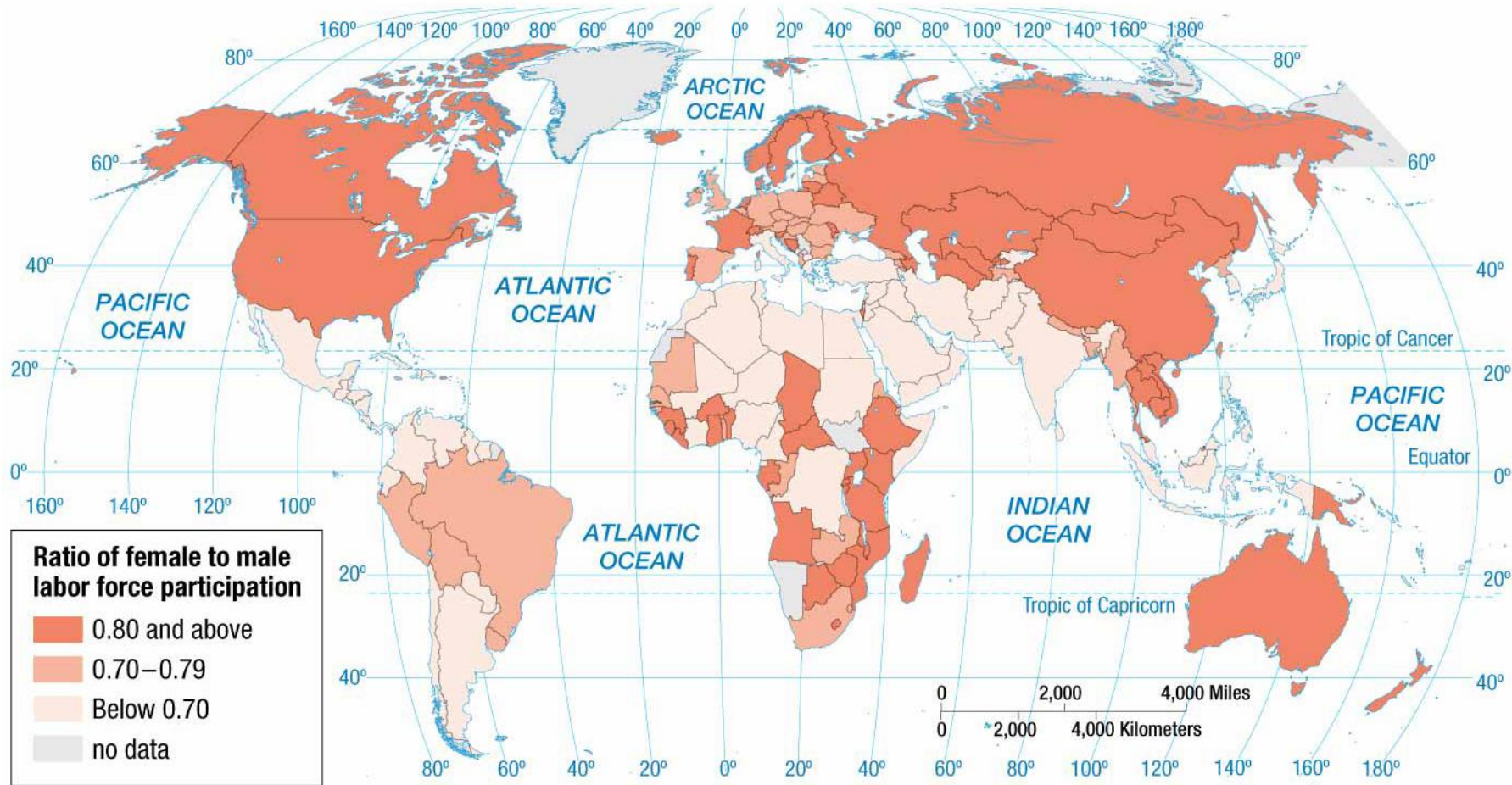
- Adolescent fertility rate

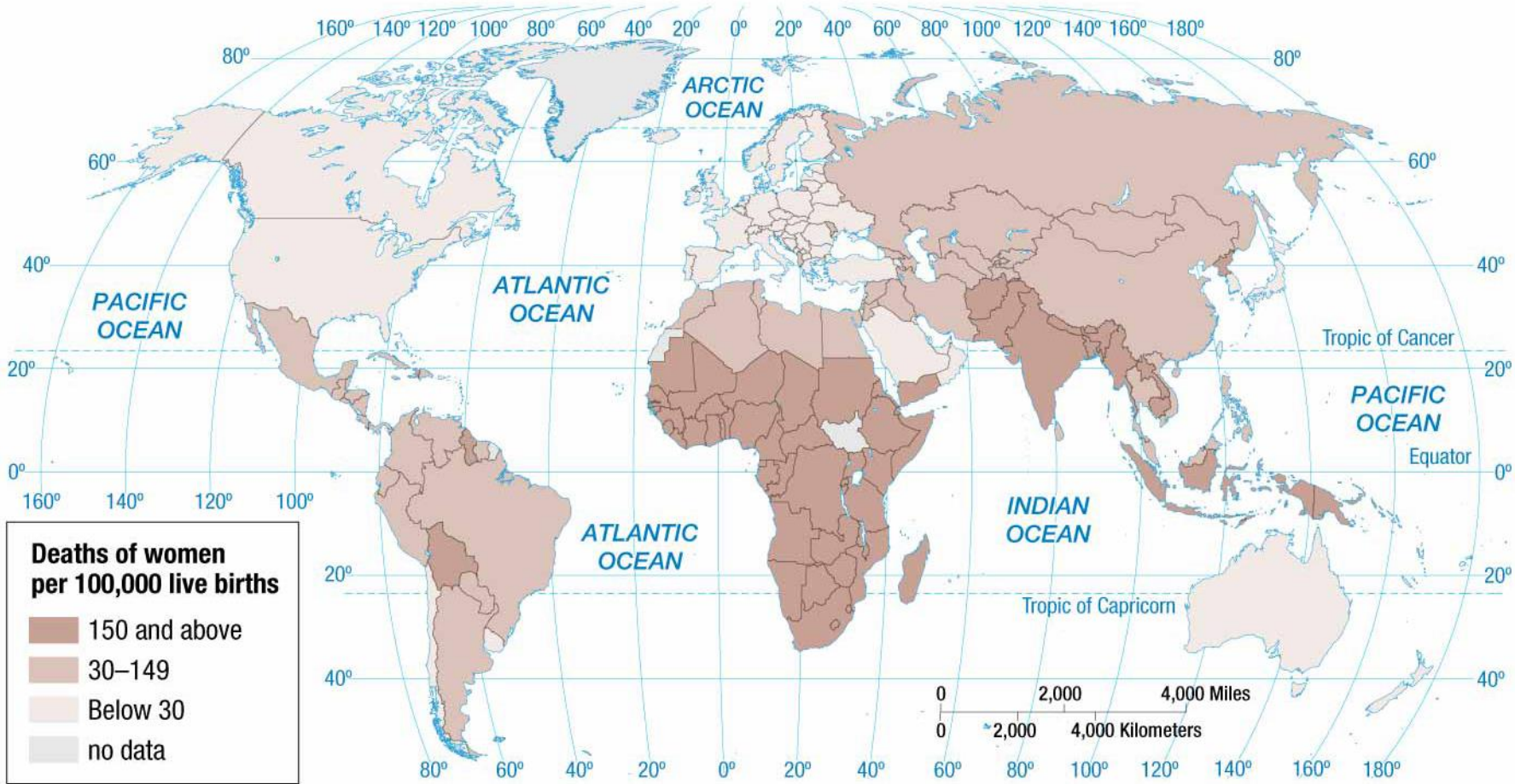


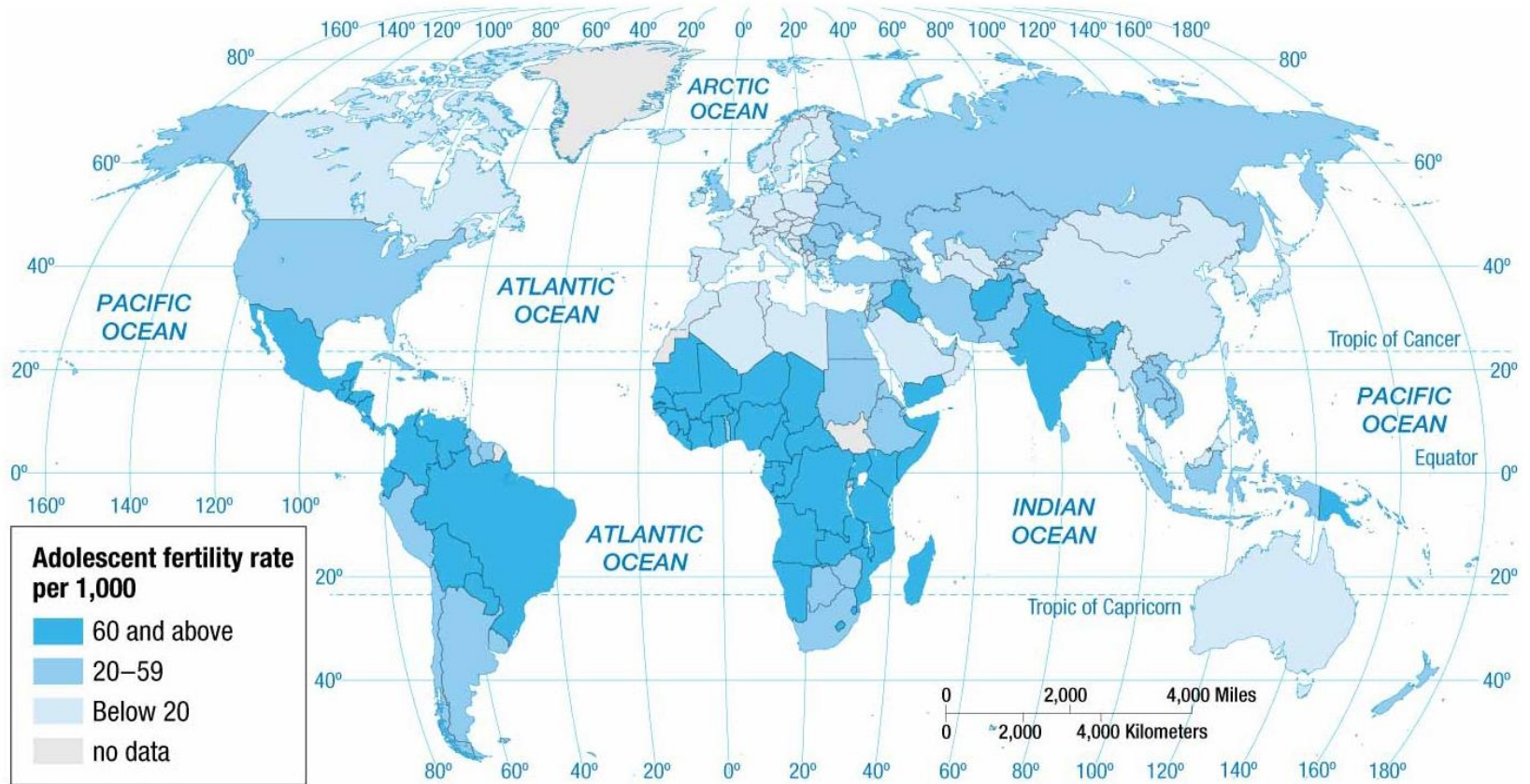






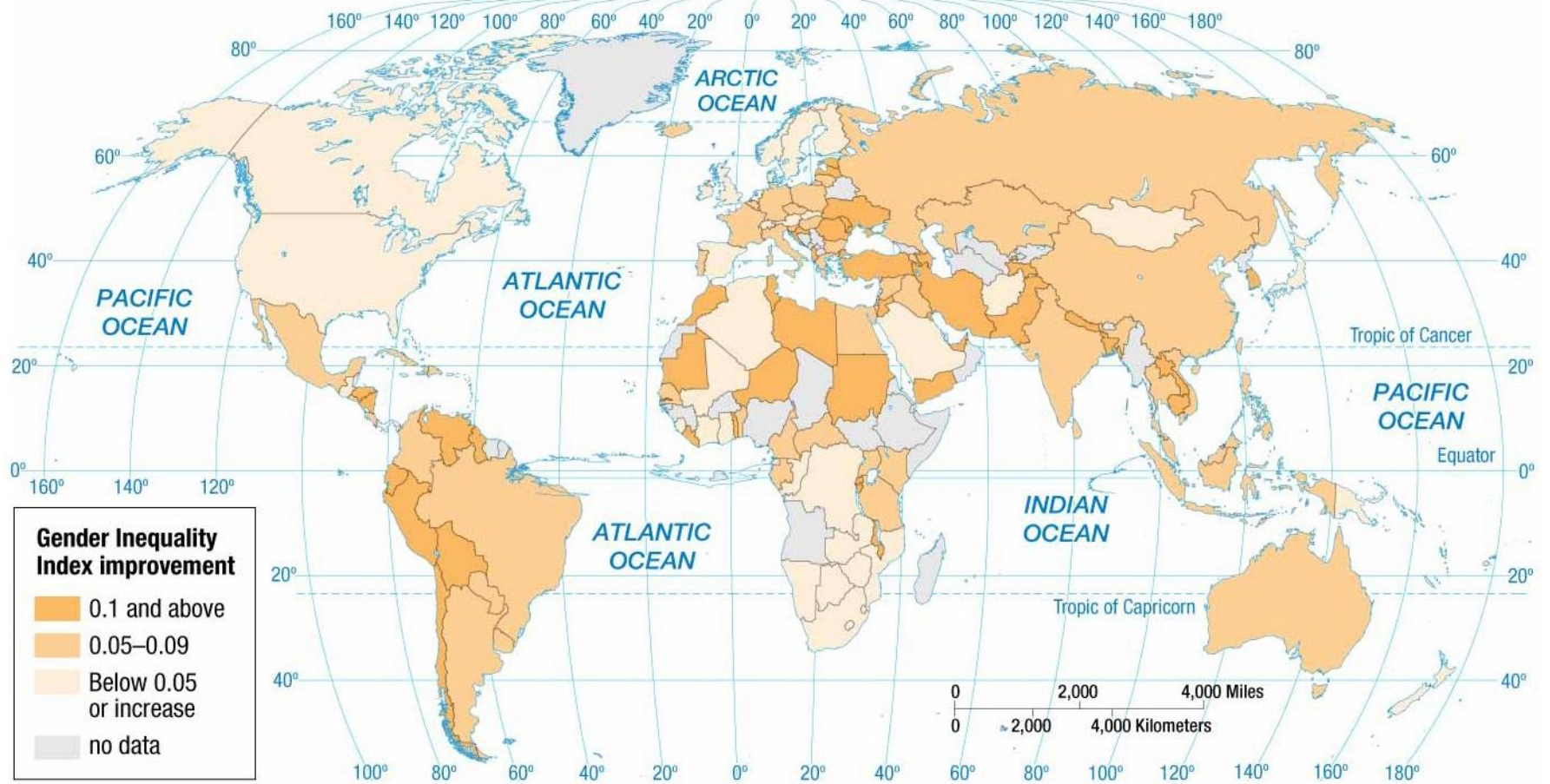






# Why Does Development Vary by Gender?

- Gender Inequality Trends
  - UN asserts gender inequality has declined in nearly every country since the 1990s.
    - Greatest improvements in Southwest Asia and North Africa.
  - U.S. is one of few developed countries where the GII has increased.
    - Reproductive rights much lower in U.S. compared to other very high HDI countries.
    - Percentage of women in the national legislature is relatively lower than other high HDI countries.

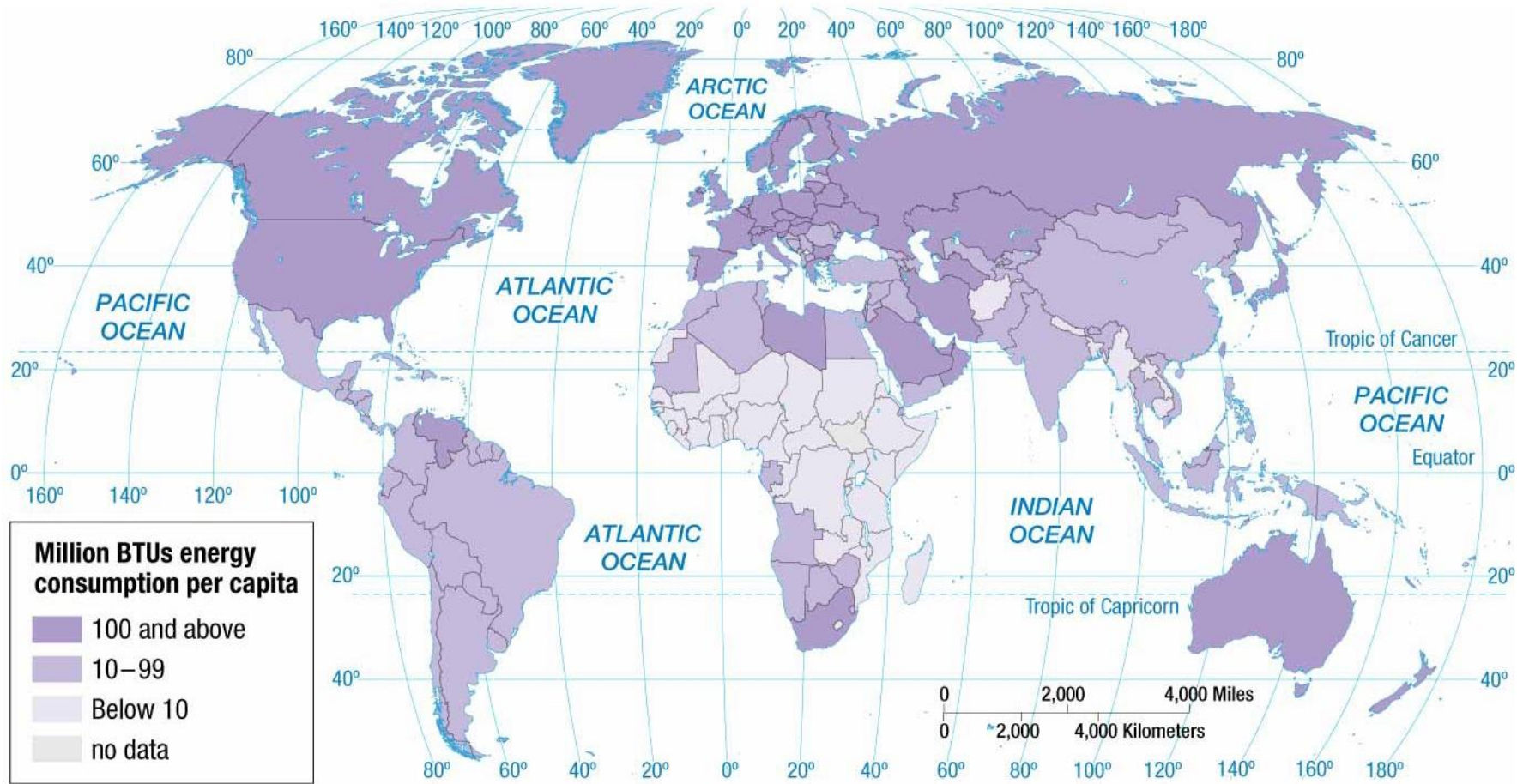


# Why is Energy Important for Development?

- Energy Demand and Supply
  - *Supply* is the quantity of something that producers have available for sale.
  - *Demand* is the quantity that consumers are willing and able to buy.
  - 5/6 of the world's energy needs are supplied by *fossil fuels*, which is an energy source formed from the residue of plants and animals buried millions of years ago.
    - Coal (27.9%)
    - Petroleum (33.2%)
    - Natural Gas (22.1%)

# Why is Energy Important for Development?

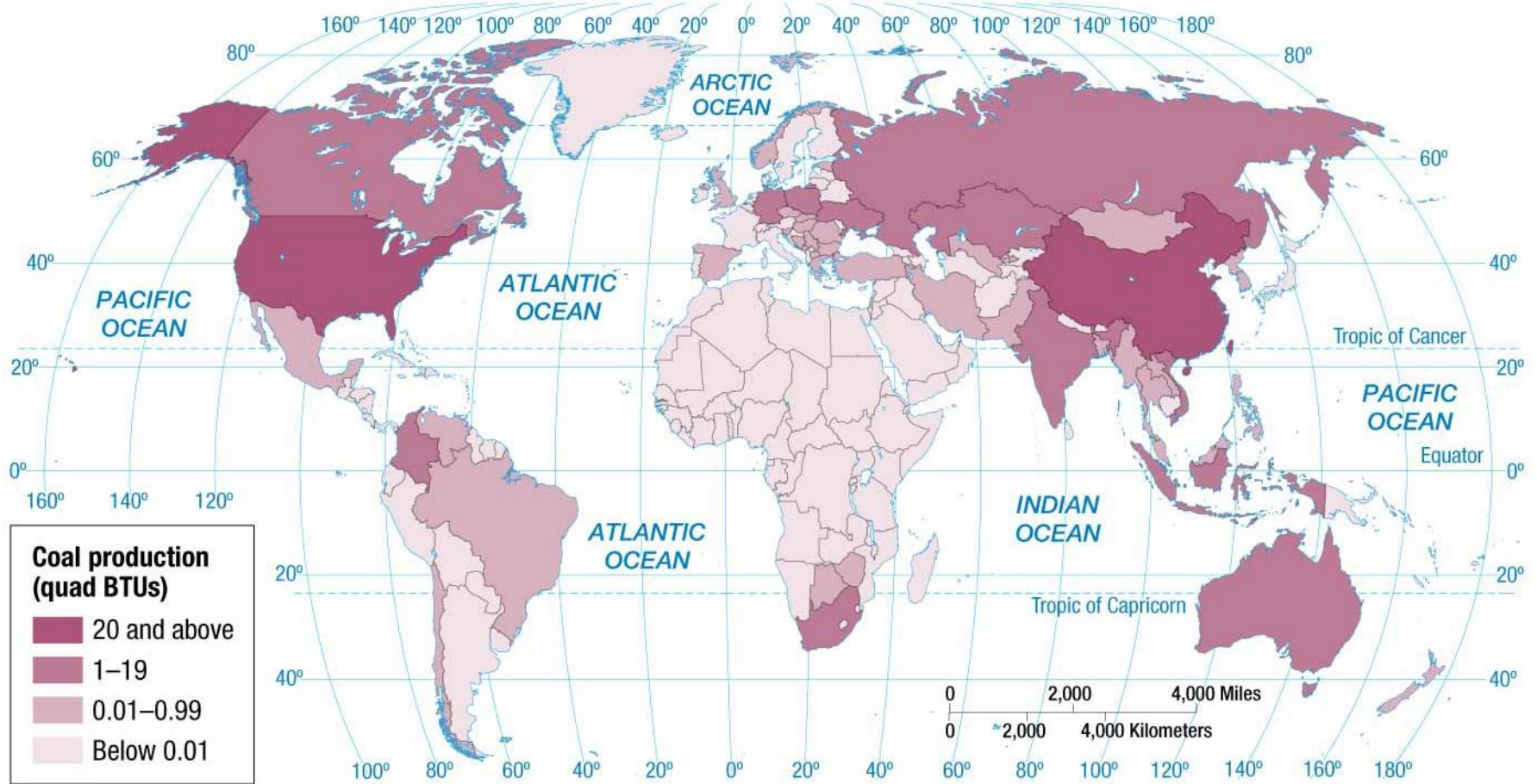
- Energy Demand and Supply
  - Demand For Energy
    - Although fewer in number, developed countries consume about  $\frac{1}{2}$  of the world's energy.
      - Percent of World Energy Consumed
        - » China: 20.4%
        - » U.S.: 18.3%
        - » Europe: 15.1%
    - Per capita consumption of energy is greatest in North America.
      - Contains  $\frac{1}{20}$  of world's population and consumes  $\frac{1}{4}$  of the world's energy.
    - Per capita consumption of energy is nearly three times greater in developed countries than in developing countries.

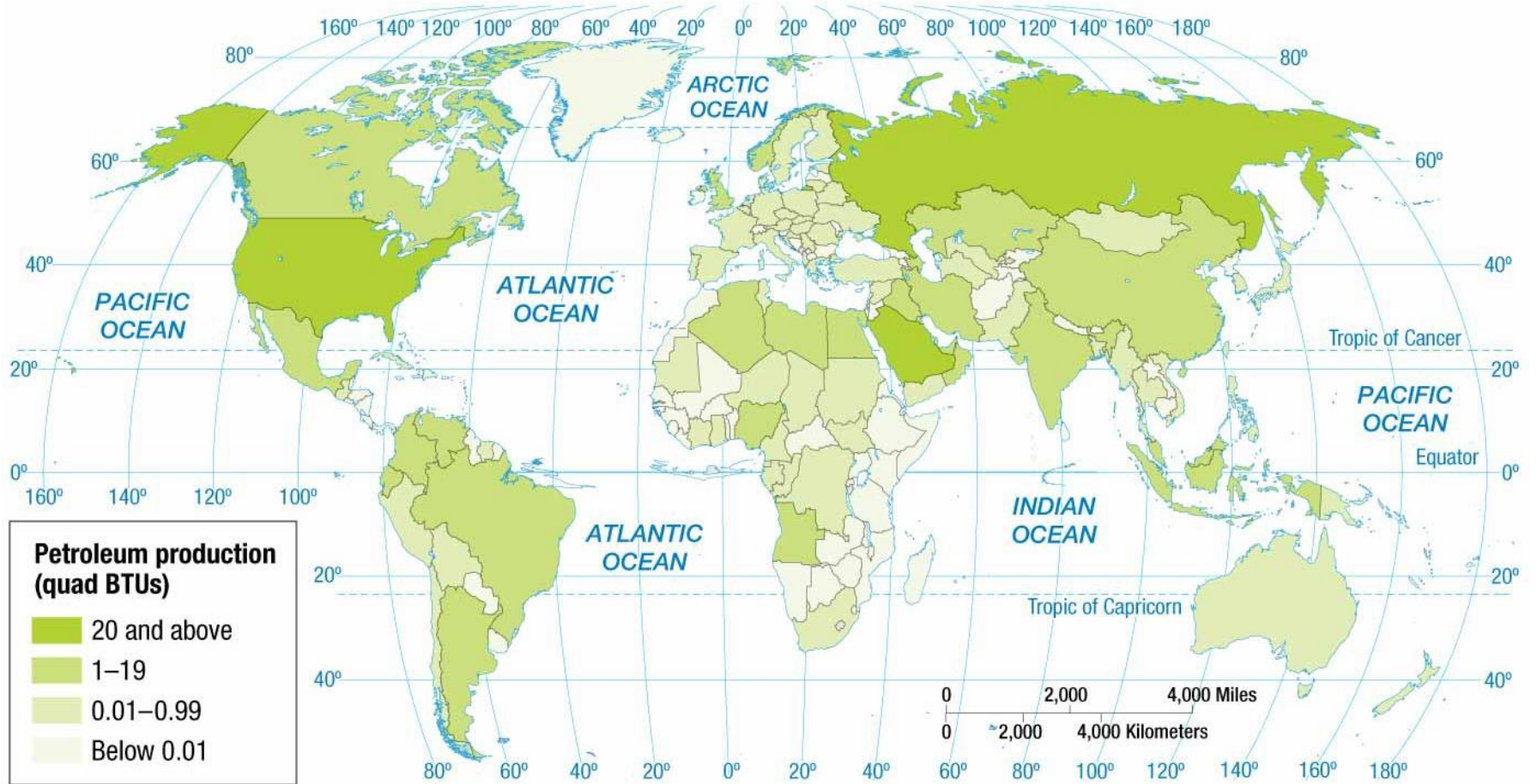




# Why is Energy Important for Development?

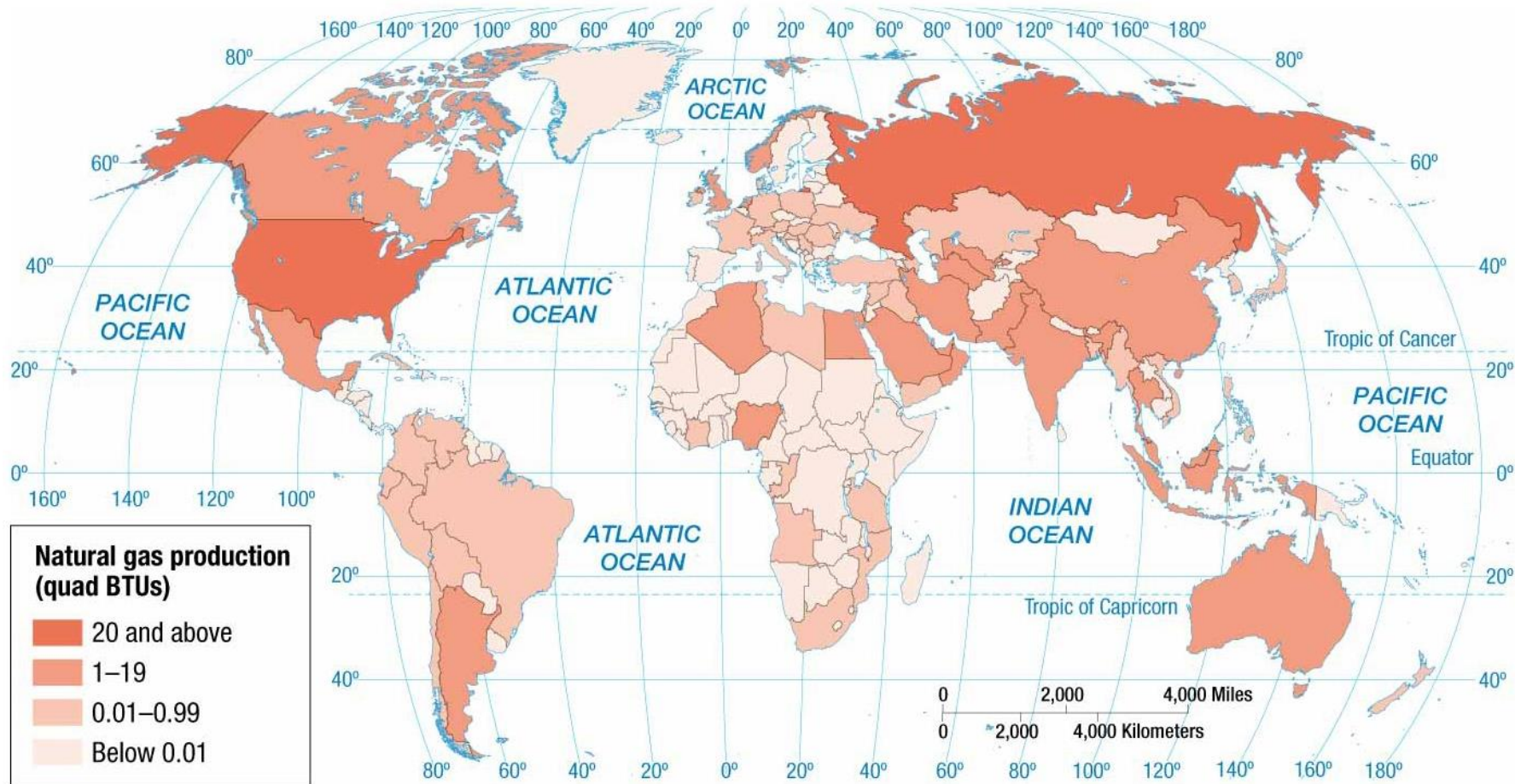
- Energy Demand and Supply
  - Energy Supply
    - Earth's energy resources are not distributed evenly.
      - Global Coal Distribution
        - » Today's main reserves of coal are located in the mid-latitude countries.
        - » China and the U.S. supply nearly  $\frac{1}{2}$  and  $\frac{1}{4}$ , respectively, of the world's coal.
      - Global Petroleum Distribution
        - » Today's main reserves are located on the seafloor and in areas once under water millions of years ago.
        - » Russia and Saudi Arabia together supply  $\frac{1}{4}$  of the world's petroleum supply.
        - » U.S. supplies  $\frac{1}{4}$  of the global supply
        - » Remaining  $\frac{1}{2}$  of world supply of petroleum is supplied by developing countries (primarily in S.W. and Central Asia)





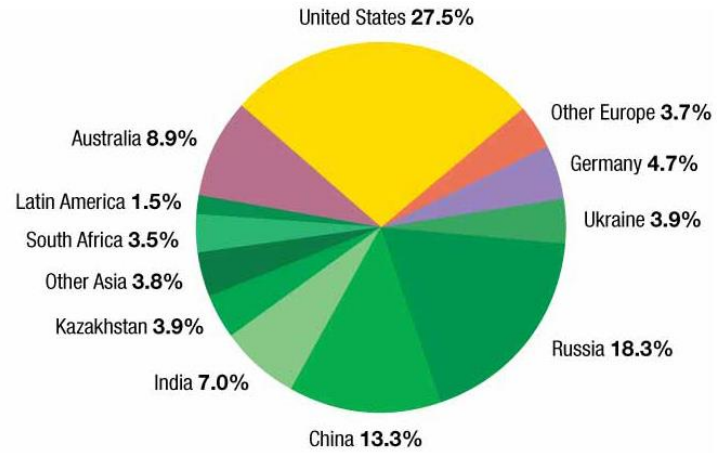
# Why is Energy Important for Development?

- Energy Demand and Supply
  - Energy Supply
    - Global Natural Gas Distribution
      - » 1/3 of natural gas production is supplied by Russia and S.W. Asia
      - » 1/3 by developing regions
      - » 1/3 by developed countries (primarily the U.S.)

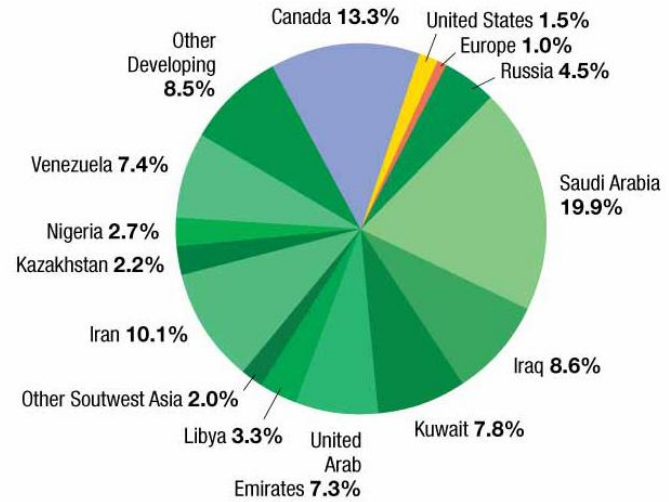
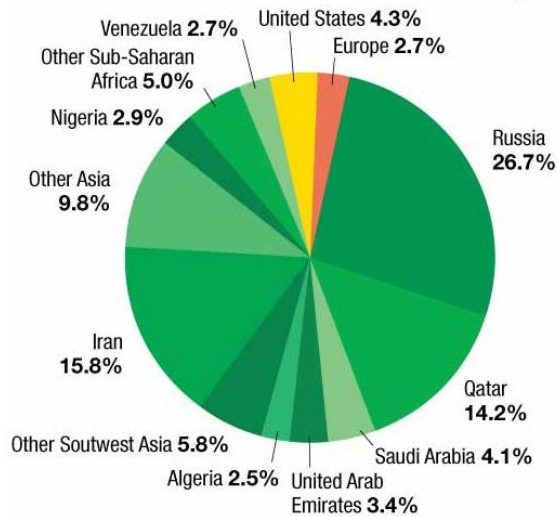
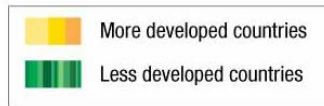


# Why is Energy Important for Development?

- Energy Demand and Supply
  - Energy Reserves
    - Two types of energy reserves exist.
      1. Proven Reserves
        - » Defined: A supply of energy remaining in deposits that have been discovered.
      2. Potential Reserves
        - » Defined: A supply of energy that is undiscovered but thought to exist.
    - Proven Reserves
      - Remaining supply of fossil fuels at current demand
        - » Coal: 131 years
        - » Natural Gas: 49 years
        - » Petroleum: 43 years



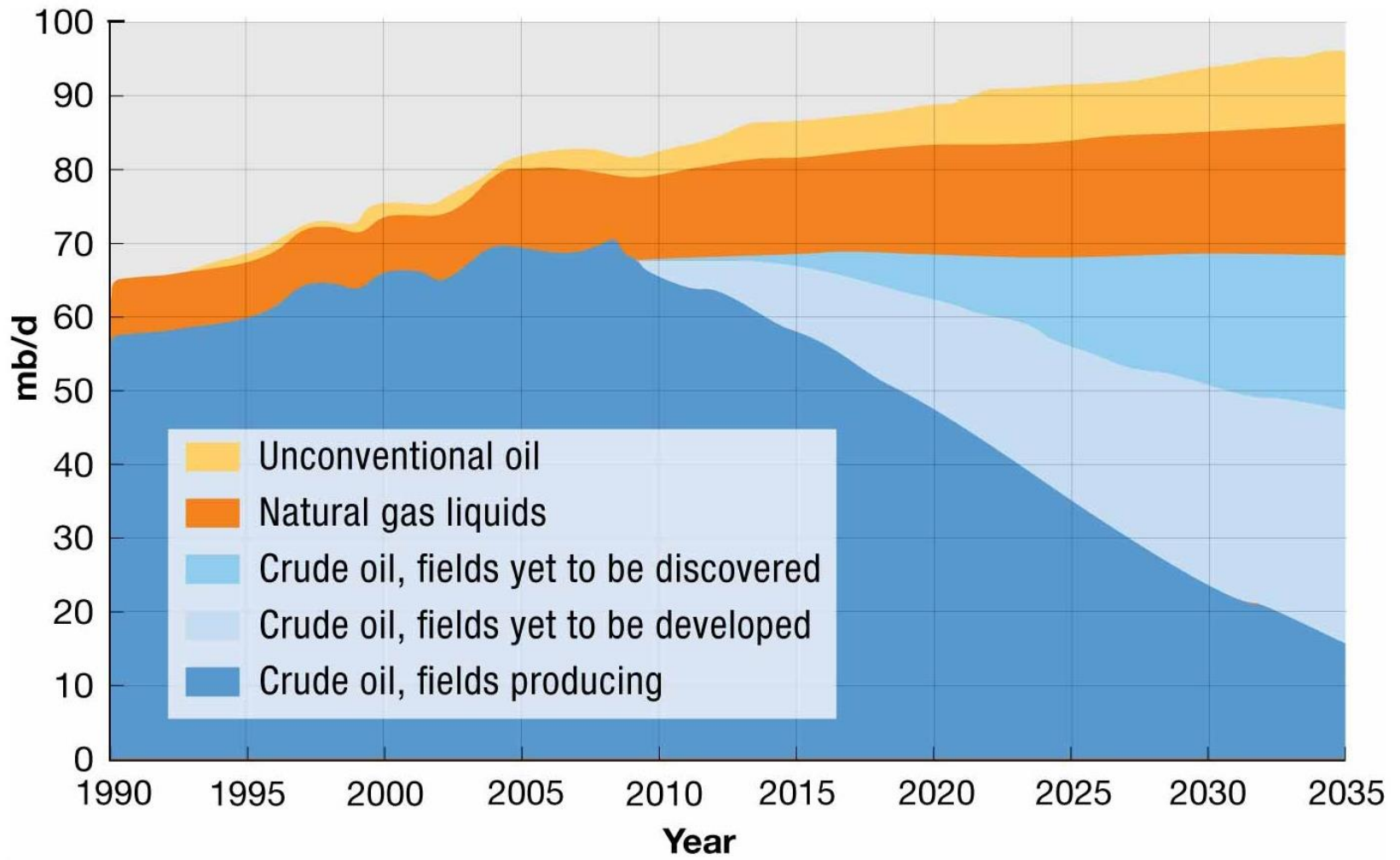
### Coal



# Why is Energy Important for Development?

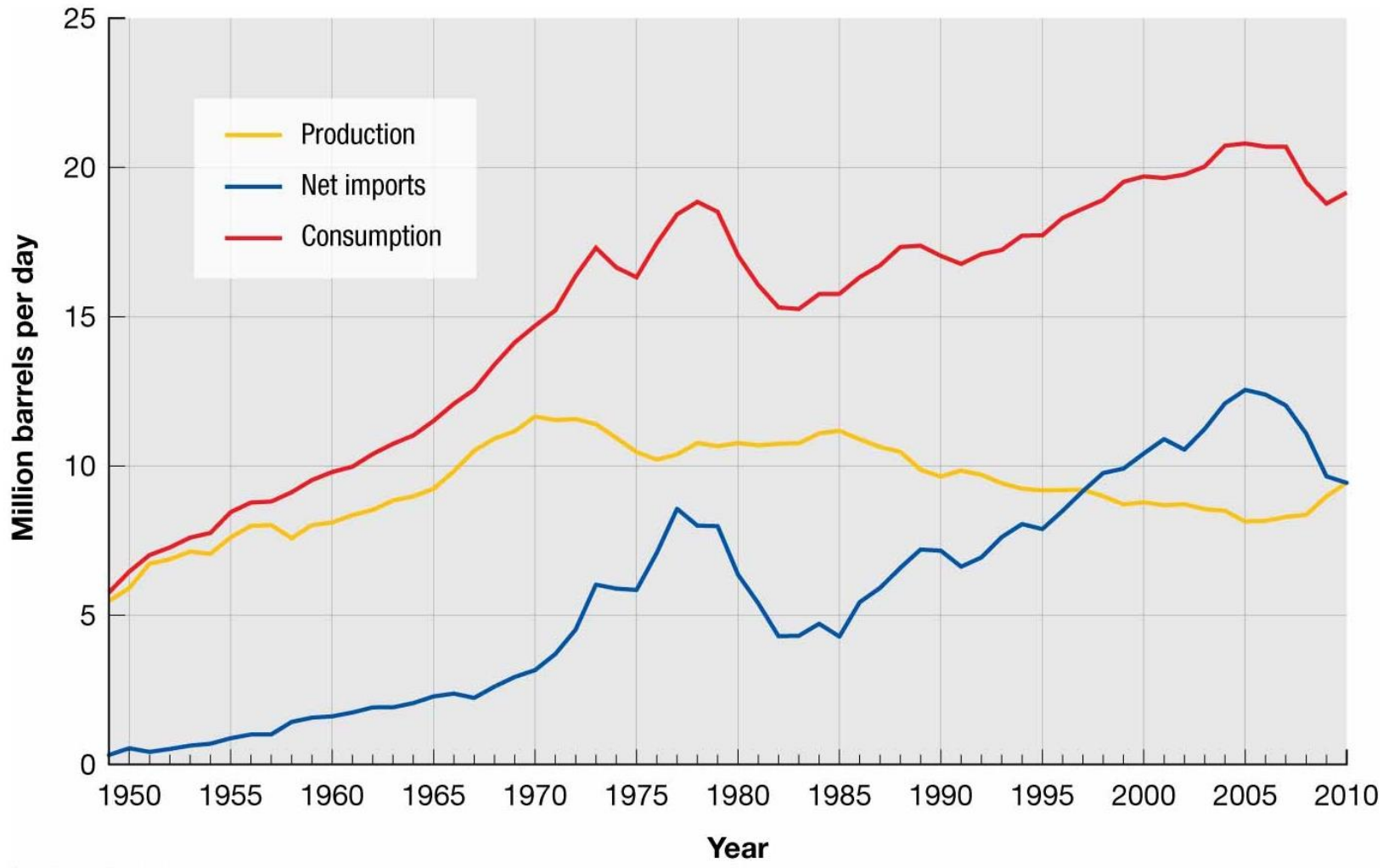
- Energy Demand and Supply
  - Energy Reserves
    - Potential Reserves
      - Potential reserves can be reclassified as a proven reserve.
        - » *Undiscovered Fields*: Newly discovered reserves are generally smaller and more remote, because the largest, most accessible fossil fuels deposits have already been exploited.
        - » *Enhanced Recovery From Already Discovered Fields*: Techniques used to remove the last supplies from a proven field.
        - » *Unconventional Sources*: Methods currently used to extract resources won't work because of insufficient technology, environmentally unsound, or not economically feasible.





# Why is Energy Important for Development?

- Energy Demand and Supply
  - Controlling Petroleum Reserves
    - Organization of the Petroleum Exporting Countries (OPEC) formed in 1960 to gain more control over their resource, as a result of U.S. and European transnational companies exploring and exploiting the oil fields of developing countries.
    - Members
      - Southwest Asia and North Africa
        - » Algeria, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and United Arab Emirates
      - Other Regions
        - » Angola, Ecuador, Iran, Nigeria, and Venezuela
    - Under OPEC, prices set by governments possessing the oil reserves rather than by petroleum companies.



# Why is Energy Important for Development?

- Energy Demand and Supply
  - Changing U.S. Petroleum Sources
    - Beginning in 1950s, extracting domestic petroleum became more expensive than importing it from S.W. and Central Asia.
      - U.S. imports increased from 14% (1954) to 58% (2009) of total consumption
    - Sharp price increases of oil set by OPEC countries during 1970s and 1980s contributed to U.S. decreasing its reliance on OPEC oil by  $\frac{1}{2}$ .
      - Share of imports from OPEC countries declined from  $\frac{2}{3}$  in 1970s to  $\frac{1}{3}$  in 1980s.
    - Price (adjusted for inflation ) of petroleum plummeted to lowest level, during the 1990s.
      - Petroleum consumption significantly increased

# Why is Energy Important for Development?

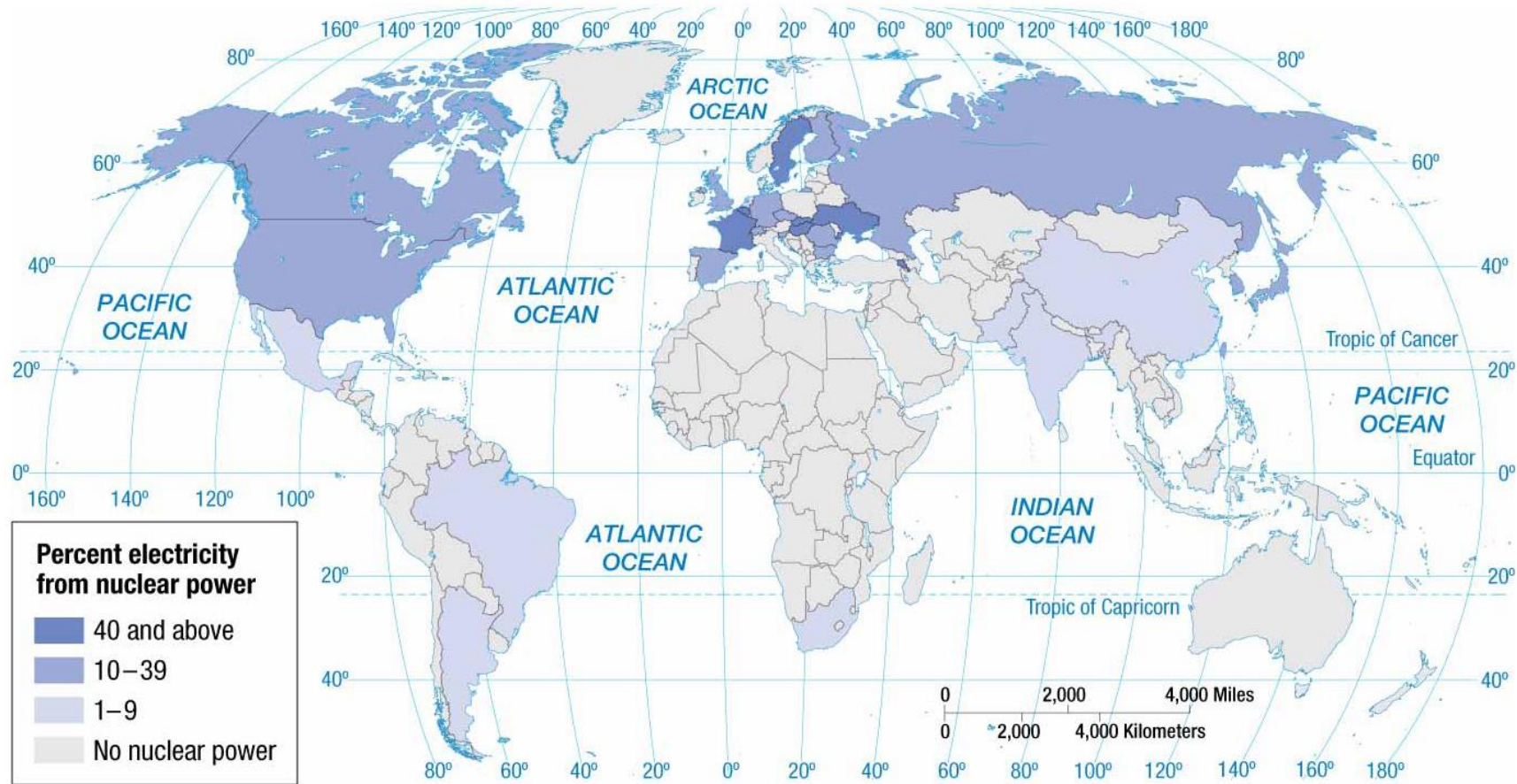
- Alternative Energy Sources

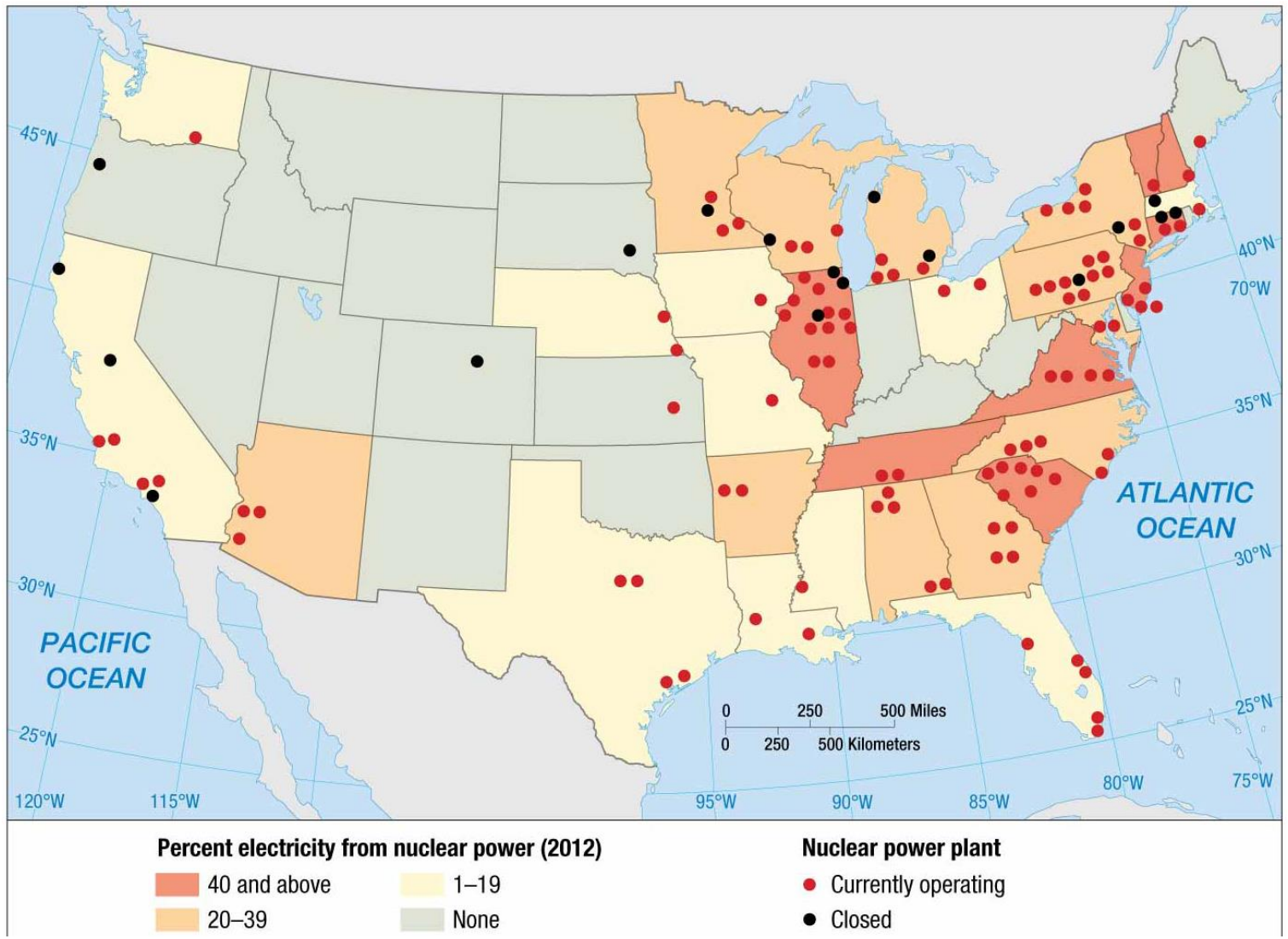
- Nuclear Energy

- Electricity produced by splitting uranium atoms in a controlled environment via a process called *fission*.
    - One product of nuclear reactions is *radioactive waste*.

- Nuclear Energy Distribution

- Supplies 14% of world's electricity
    - Used by only 30 of world's nearly 200 countries
      - 19 developed countries; 11 developing countries
    - 2/3 of world's nuclear power generated in North America and Europe
    - Most highly dependent countries clustered in Europe
    - Relatively higher concentration of nuclear power plants in the Eastern half of the U.S.





# Why is Energy Important for Development?

- Alternative Energy Sources
  - Nuclear Energy Challenges
    - Radioactive waste is highly lethal to humans.
      - Not possible to burn or chemically treat such waste to make it safe for human exposure.
        - » Waste must remain isolated from human contact for thousands of years, until it loses radioactivity.
    - Uranium is a nonrenewable resource
      - Proven reserves projected to last 124 years at current consumption rate.
    - High Cost
      - Nuclear power plants cost several billion dollars to build.
      - Complexities of safe transportation and storage of radioactive waste are costly.



# Why is Energy Important for Development?

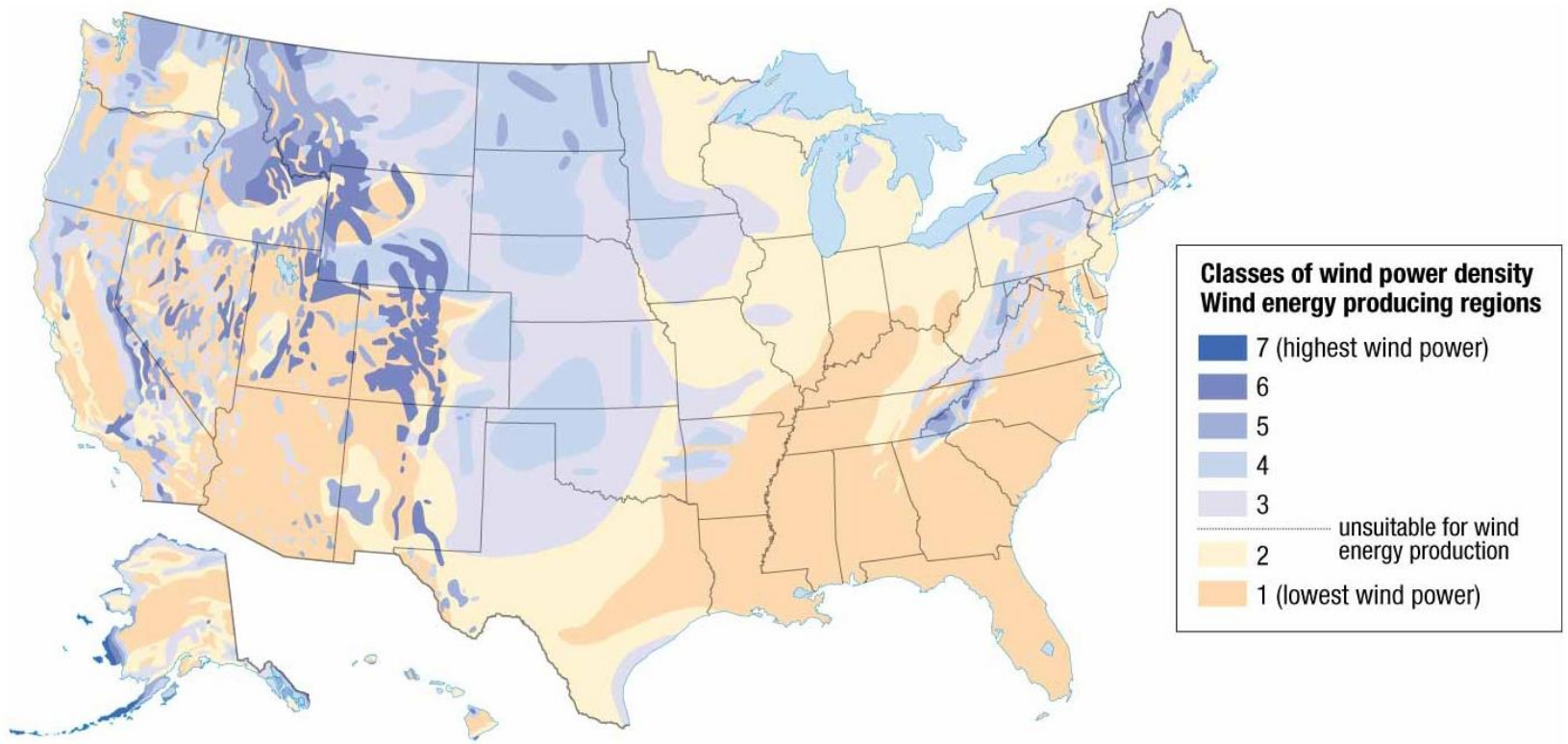
- Alternative Energy Sources
  - Renewable Energy
    - Hydroelectric Power
      - Harnesses the power of moving water to convert it to electricity.
      - Leading source of renewable energy in both developed and developing regions.
      - 2<sup>nd</sup> most popular source of electricity after coal
      - Lack of remaining acceptable sites to construct a hydroelectric dam poses a challenge to increasing reliance in U.S.
    - Biomass
      - Biomass energy sources include wood and crops that can be burned as fuel to generate electricity and heat.
        - » Ex.: Sugarcane, corn, and soybeans can be processed into motor-vehicle fuels.

# Why is Energy Important for Development?

- Alternative Energy Sources
  - Renewable Energy
    - Limiting Factors for Increasing Reliance on Biomass
      - Inefficiency
        - » Burning biomass may require as much energy to produce the crops as they supply.
      - “Putting Food” in the Gas Tank
        - » Biomass already serves essential purposes, such as providing much of Earth’s food, clothing, and shelter.
      - Environmental Concerns
        - » Logging trees for wood to be burned may reduce the fertility of the forest.

# Why is Energy Important for Development?

- Alternative Energy Sources
  - Renewable Energy
    - Wind Energy
      - Relatively minimal impact on the environment
      - Greater potential for increased use, because only a small portion of the potential resource has been harnessed.
      - Greatest challenge for expanding reliance is opposition by environmentalists who voice their concerns about windmills being noisy, lethal for birds and bats, and a visual blight on the landscape.



# Why is Energy Important for Development?

- Alternative Energy Sources
  - Renewable Energy
    - Solar Energy
      - Ultimate renewable resource supplied by the Sun.
      - U.S. receives 1% of its electricity from solar, but potential growth is limitless.
      - Solar energy is harness through one of two means.
        1. *Passive solar energy systems* capture energy without using special devices.
        2. *Active solar energy systems* collect solar energy and convert it either to heat energy or to electricity either directly or indirectly.





# Why Do Countries Face Obstacles to Development?

- Two Paths to Development
  - Developing countries chose of of two models to promote development:
    1. *Self-sufficiency*
      - Countries encourage domestic production of goods, discourage foreign ownership of businesses and resources, and protect their businesses form international competition.
      - Most popular for most of 20<sup>th</sup> century
    2. International trade
      - Countries open themselves to foreign investment and international markets.
      - Became more popular beginning in the late 20<sup>th</sup> century



# Why Do Countries Face Obstacles to Development?

- Two Paths to Development
  - Self-Sufficiency Path Key Elements
    - Barriers limit the import of goods from other places.
    - Businesses are not forced to compete with international corporations.
    - Investment spread almost equally across all economic sectors and in all regions of a country.
    - Minimalized discrepancies in wages among urban and rural dwellers with the intent to reduce poverty.

# Why Do Countries Face Obstacles to Development?

- Two Paths to Development
  - International Trade Path
    - Rostow Model
      1. Traditional Society
        - » Marked by a very high percentage of people engaged in agriculture and a high percentage of national wealth allocated to “nonproductive” activities. e.g. military
      2. Preconditions for Takeoff
        - » Elite group initiates innovative economic activities that ultimately stimulate an increase in productivity.
      3. Takeoff
        - » Rapid growth is generated in a limited number of economic activities. e.g. textiles

# Why Do Countries Face Obstacles to Development?

- Two Paths to Development
  - International Trade Path
    - Rostow Model
      4. Drive to Maturity
        - » Modern technology pervades from the few takeoff industries to other economic sectors, thus sparking rapid growth.
      5. Age of Mass Consumption
        - » Marked by a shift from heavy industry, such as steel, to consumer goods.

# Why Do Countries Face Obstacles to Development?

- Shortcomings of the Two Development Paths
  - Self-Sufficiency Challenges
    - Protection of inefficient businesses
      - Guaranteed high prices made possible by isolation from international competition creates little incentive for business to improve quality of product or become more efficient.
      - Companies protected from international competition aren't compelled to keep up with rapid technological changes.
    - Need for large bureaucracy
      - A complex administrative systems needed to administer the controls encourages inefficiency, abuse, and corruption.

# Why Do Countries Face Obstacles to Development?

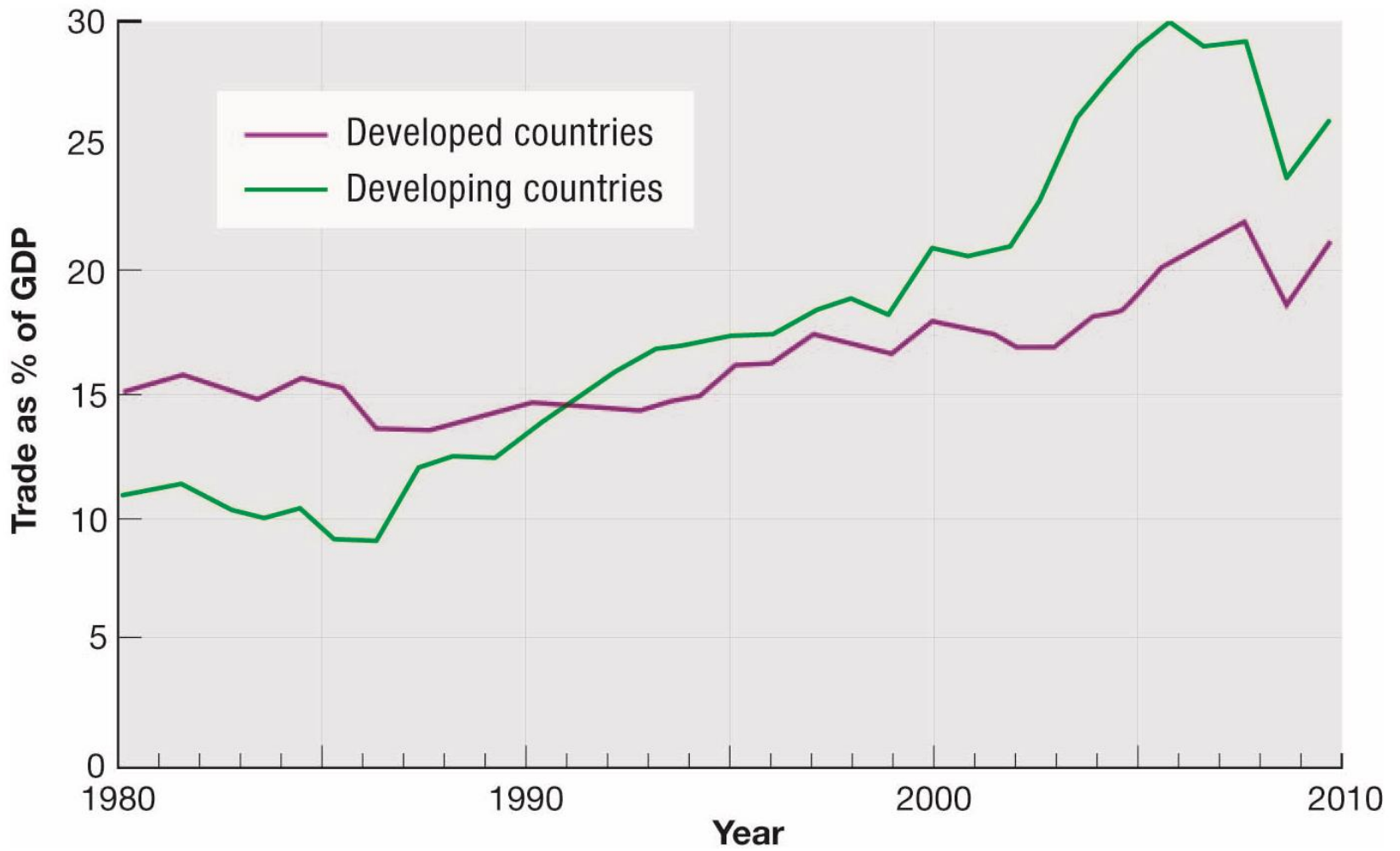
- Shortcomings of the Two Development Paths
  - International Trade Challenges
    - Uneven resource distribution
      - Commodity prices are not guaranteed to rise faster than the cost of products a developing country needs to purchase.
    - Increased dependence on developed countries
      - Developing countries may allocate all resources to few take off industries instead of spreading resources among the other companies that provide food, clothing, and other necessities for local residents.
  - Market decline
    - Developing countries have found increased difficulty selling their manufactured goods in a world market that has recently declined for many products.

# Why Do Countries Face Obstacles to Development?

- International Trade Approach Triumphs
  - Most countries have embraced the international trade approach since the late 20<sup>th</sup> century.
    - Trade has increased more rapidly than wealth as measured by GDP.
  - Optimism about the benefits of this development model based on three observations:
    - 1.If existing developed countries used this approach, then why couldn't others find similar success?
    - 2.Sales of raw materials could generate funds for developing countries that could promote development.

# Why Do Countries Face Obstacles to Development?

- International Trade Approach Triumphs
  - Optimism about the benefits of this development model based on three observations:
    3. A country that concentrates on international trade benefits from exposure to the demands, needs, and preferences of consumers in other countries.





# Why Do Countries Face Obstacles to Development?

- **Financing Development**
  - Finance comes from two primary sources:
    1. Direct investment by transnational corporations
    2. Loans from banks and international organizations
  - **Foreign Direct Investment (FDI)**
    - Defined: Investment made by a foreign company in the economy of another country.
    - FDI grew from \$130 billion in 1990s to \$1.5 trillion in 2000 and 2010.
      - In 2010, only 2/5 went from developed to developing
    - Major source of FDI are transnational corporations

# Why Do Countries Face Obstacles to Development?

- Financing Development

- Loans

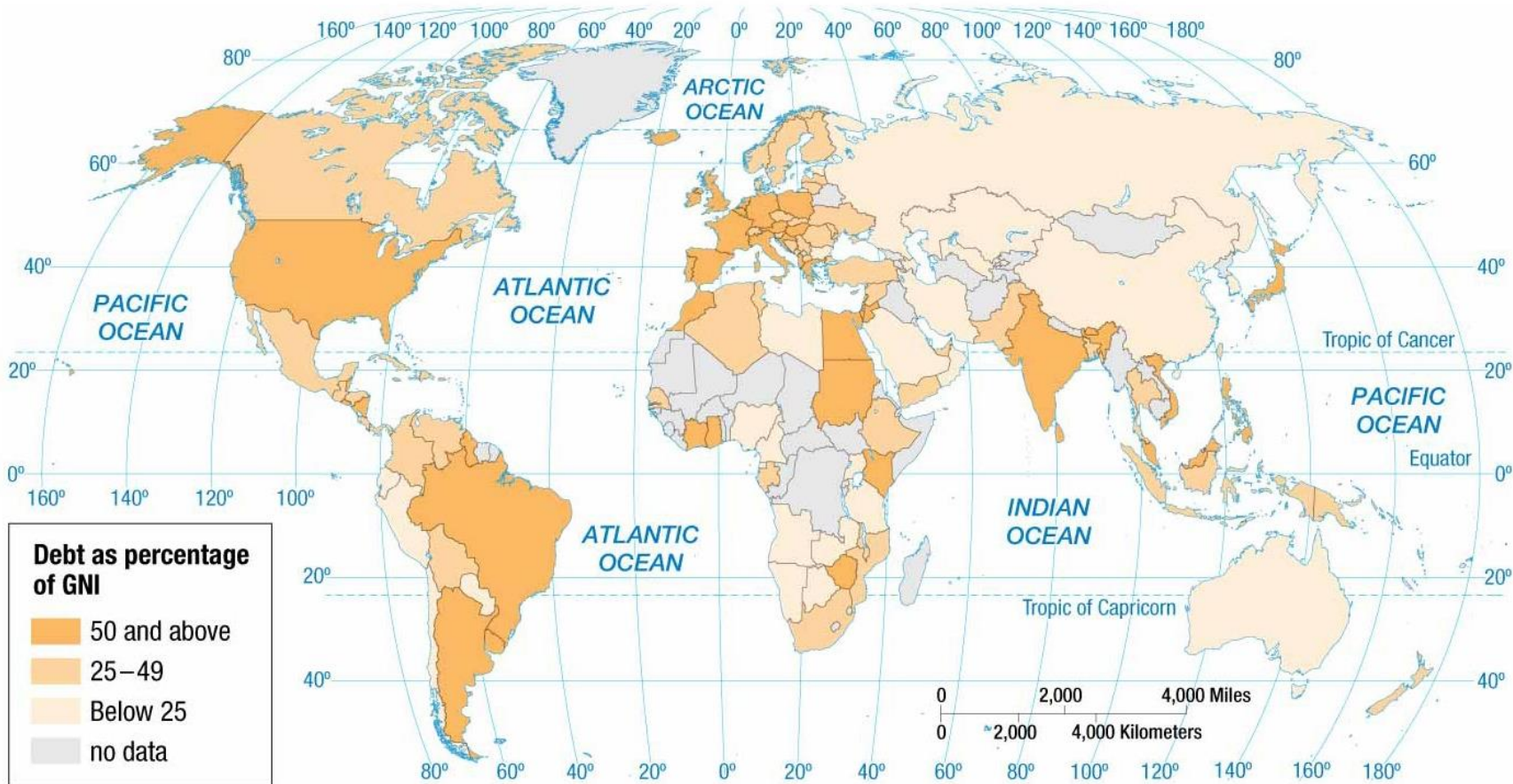
- Two major lenders to developing countries:

- 1. World Bank

- » Includes the International Bank for Reconstruction and Development (IBRD) and International Development Association (IDA).

- » IBRD provides loans to countries to reform public administration and legal institutions, develop and strengthen financial institutions, and implement transportation and social service projects.

- » IDA provides support to countries considered too risky to receive loans from IBRD.



# Why Do Countries Face Obstacles to Development?

- Financing Development

- Loans

- Two major lenders to developing countries:

- 2. International Monetary Fund (IMF)

- » IMF provides loans to countries experiencing balance-of-payments problems that threaten expansion of international trade.

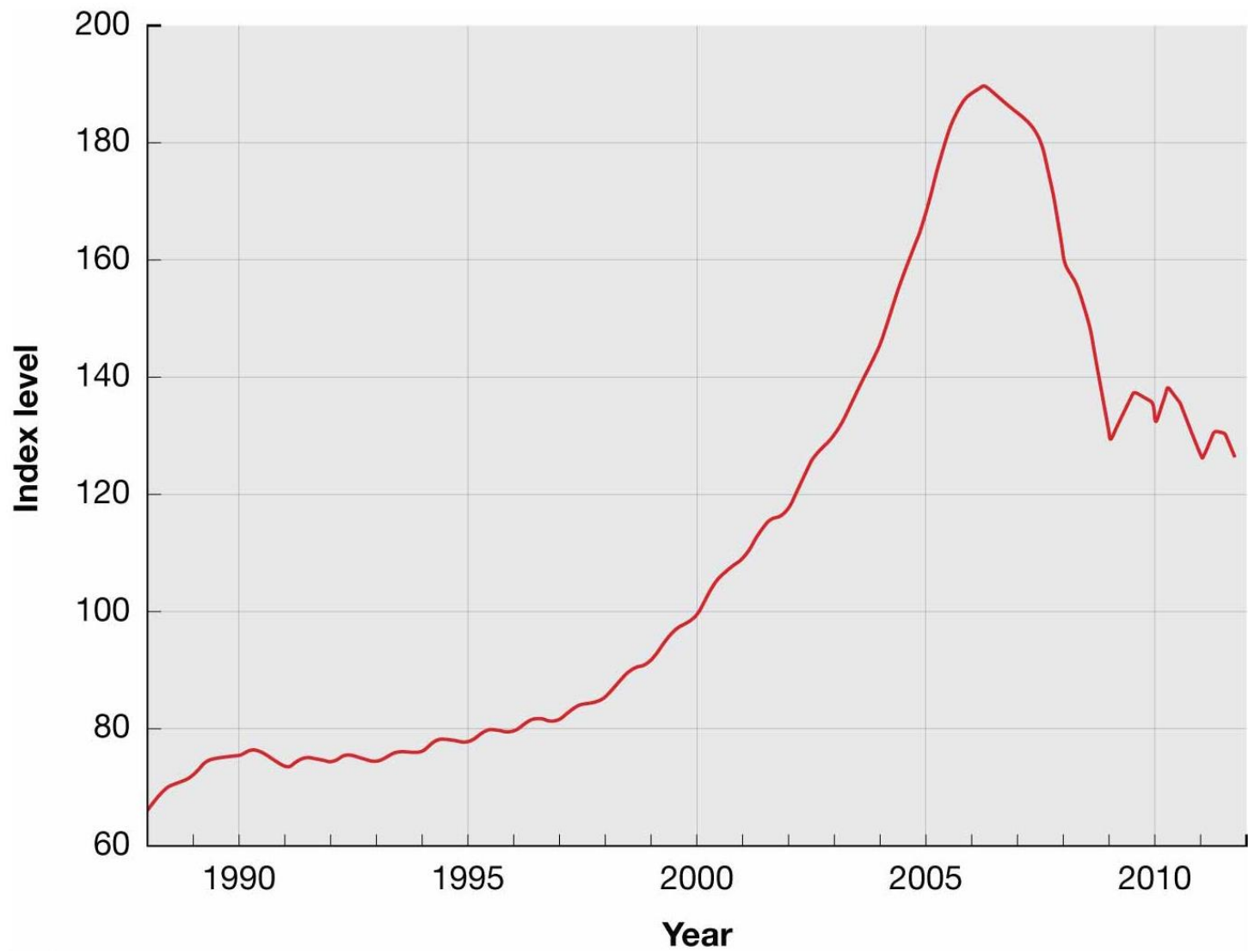
- » IMF assistance designed to help a country rebuild international reserves, stabilize currency exchange rates, and pay for imports without the imposition of harsh trade restrictions or capital controls that could hamper the growth of world trade.

# Why Do Countries Face Obstacles to Development?

- Financing Challenges in Developing and Developed Countries
  - Developing Countries
    - IMF, World Bank, and developed countries fear that granting, canceling, or refinancing debts without strings attached will perpetuate bad habits in developing countries.
      - Developing countries required to prepare a Policy Framework Paper outlining a *structural adjust program*, which includes economic goals, strategies for achieving the objectives, and external financing requirements.

# Why Do Countries Face Obstacles to Development?

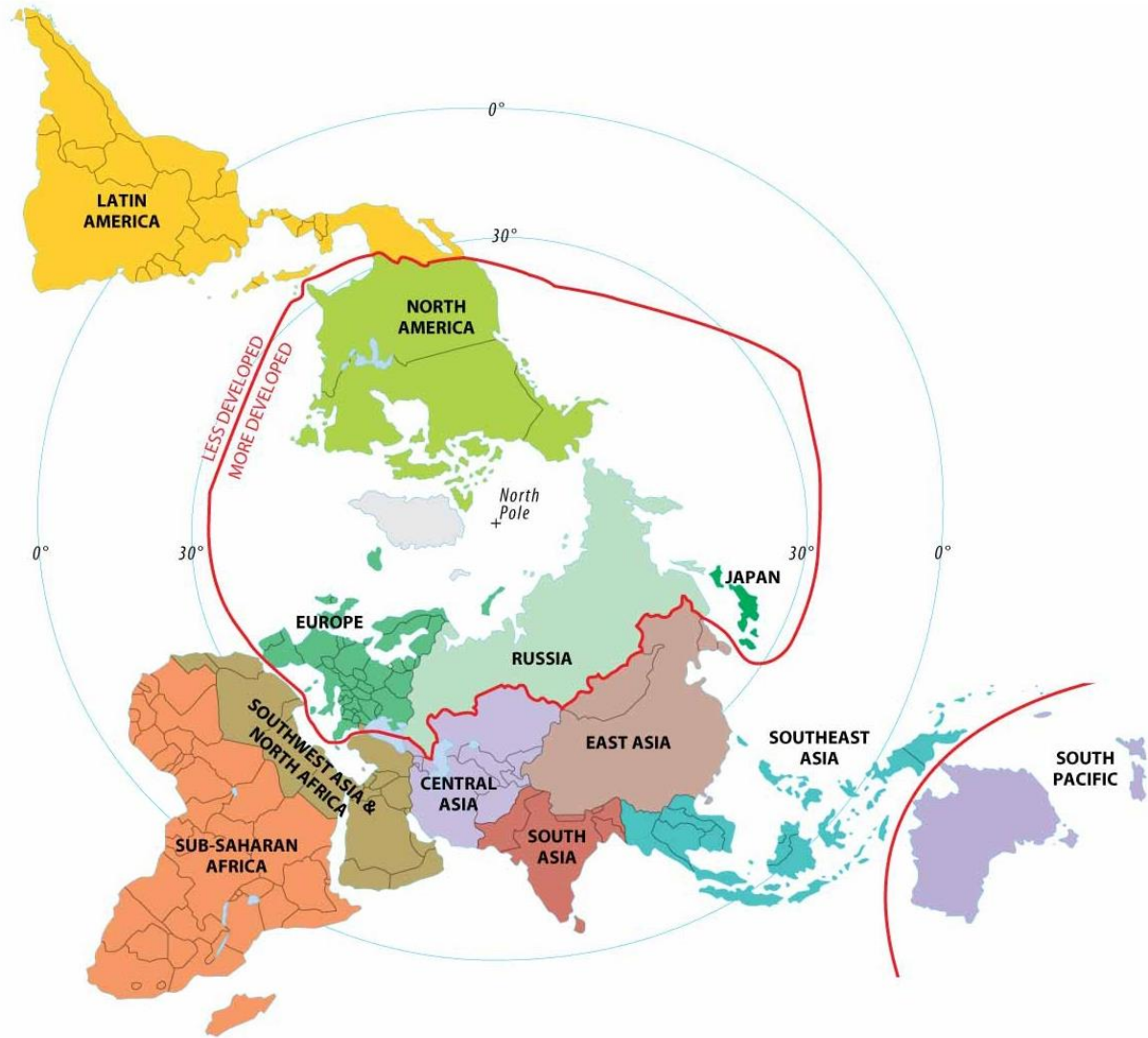
- Financing Challenges in Developing and Developed Countries
  - Developed Countries
    - Heart of the global economic crisis in developed countries was the poor condition of many banks and other financial institutions.
    - Bad loans were especially widespread in housing, which led to the *housing bubble*- a rapid increase in the value of houses following by a sharp decline in their value.
      - Bubble burst because of relaxation of long-standing restrictions on the ability of individuals to purchase houses and higher-income people took advantage of low-interest loans to buy additional houses.



# Why Do Countries Face Obstacles to Development?

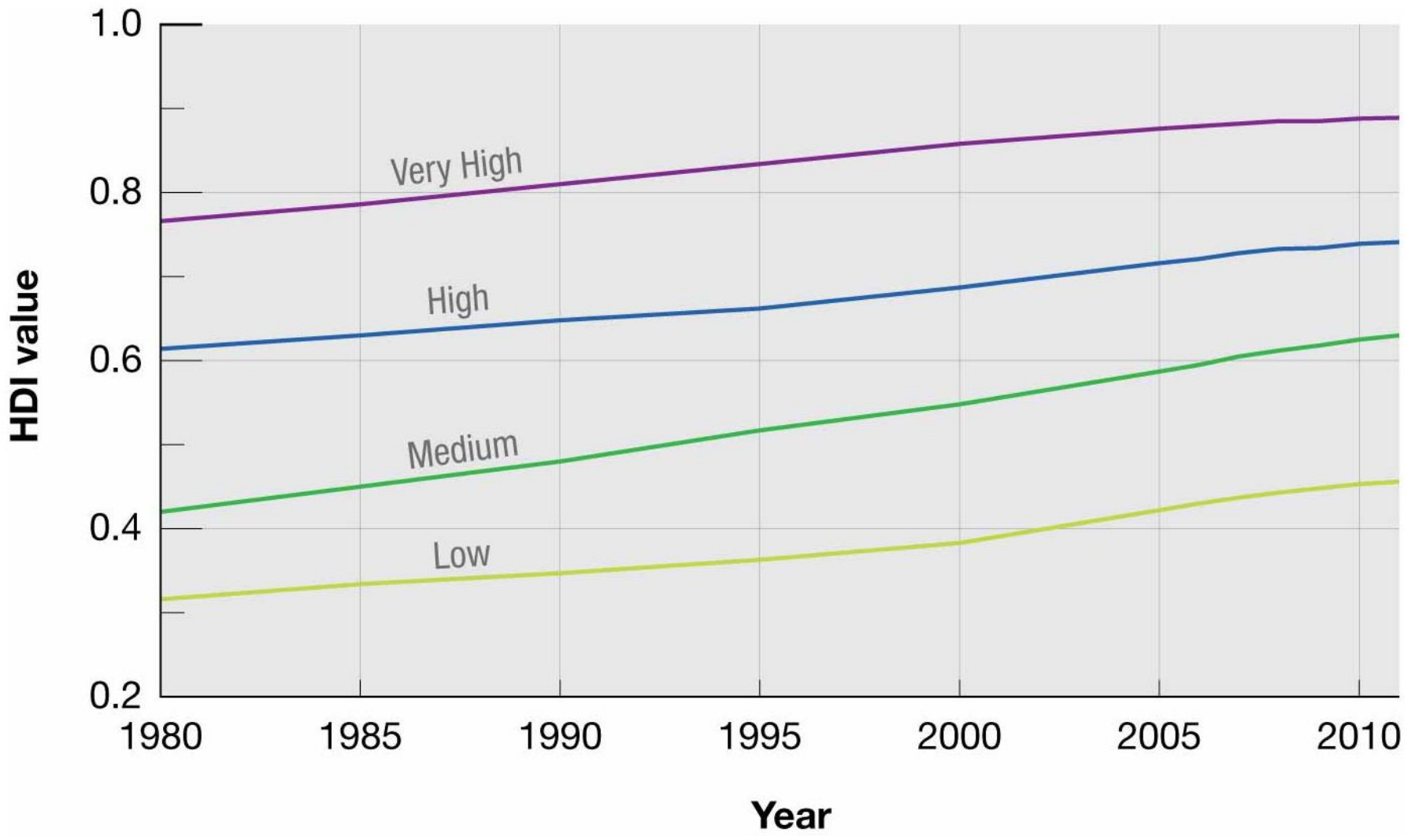
- Making Progress in Development
  - Immanuel Wallerstein, a U.S. social scientist, posited a world-systems analysis that unified the world economy with developed countries forming an inner core area, whereas developing countries occupy peripheral locations.
  - Developing countries in the periphery have less access to the world center of consumption, communications, wealth, and power, which are clustered in the core.

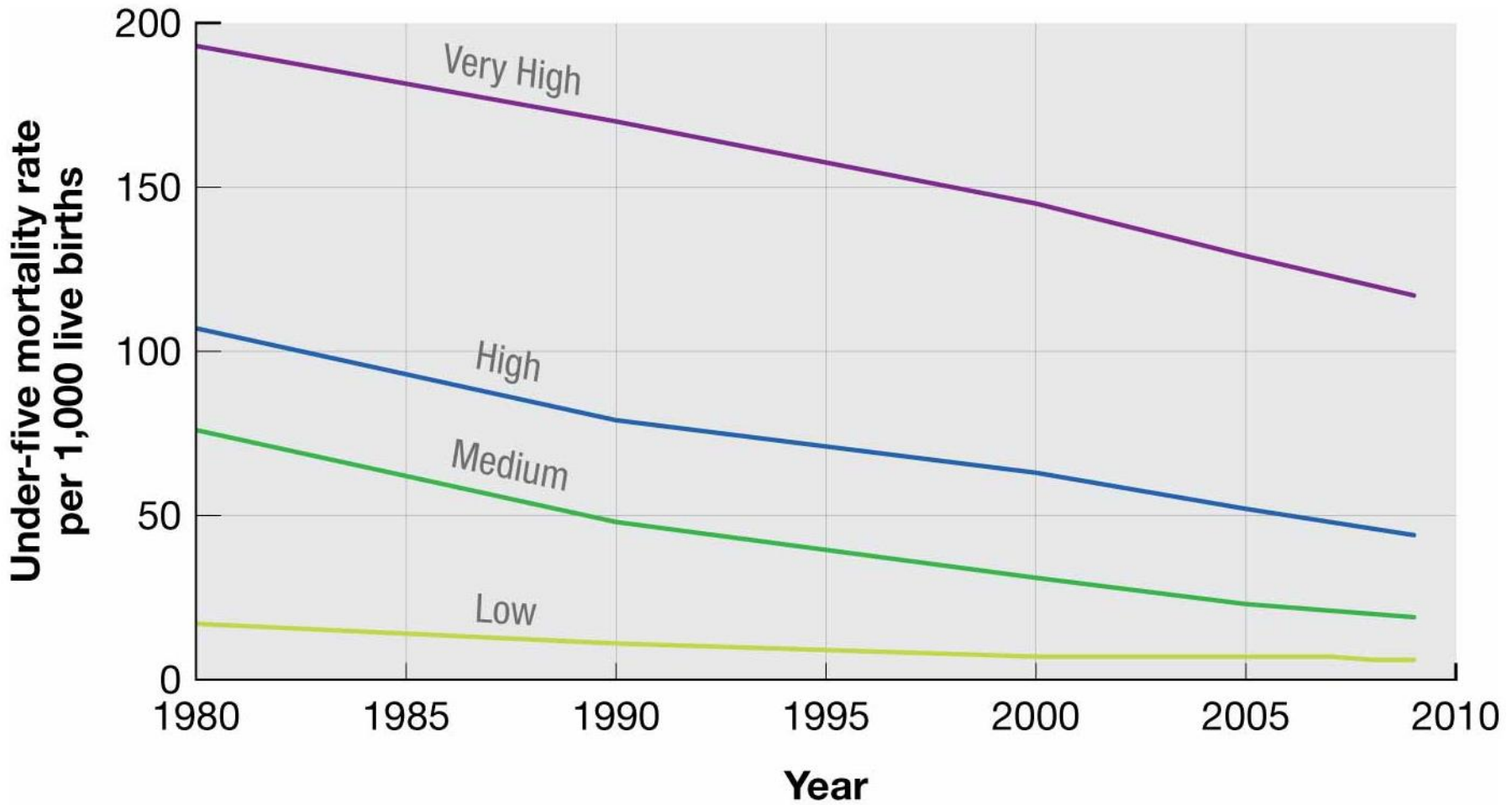


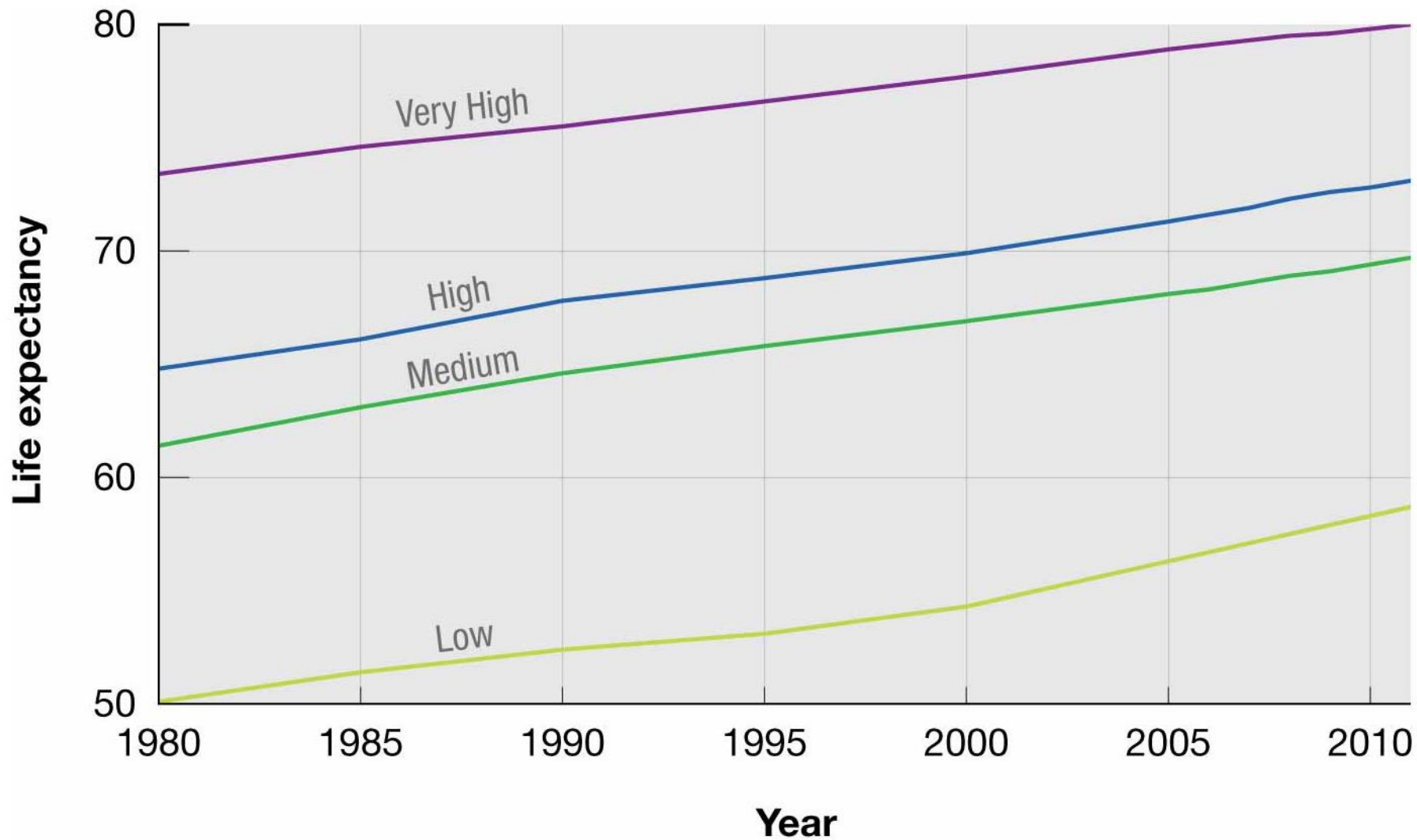


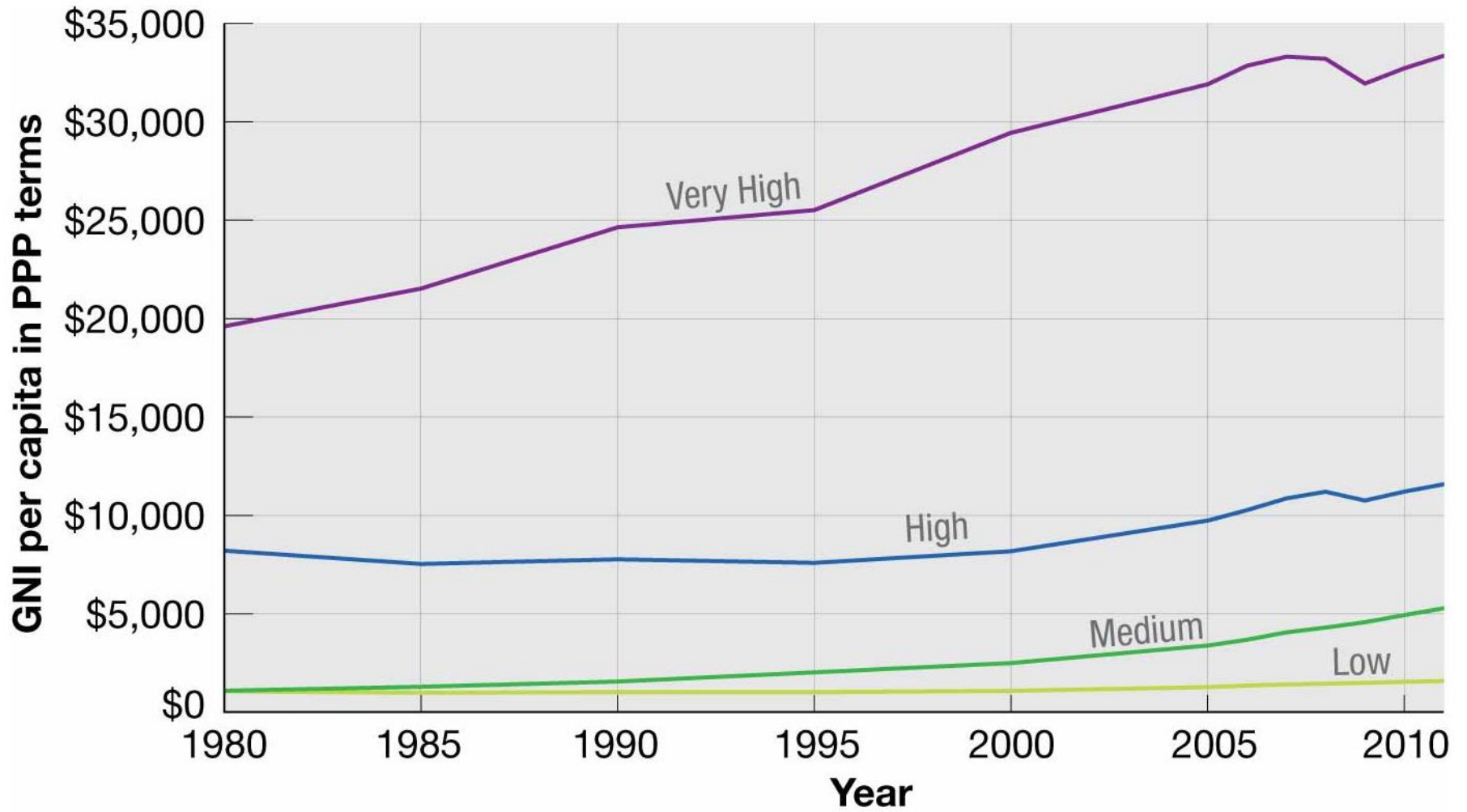
# Why Do Countries Face Obstacles to Development?

- Making Progress in Development
  - Closing the Gap
    - Progress in reducing the gap in level of development between developed and developing countries varies depending on the variable:
      - Infant Mortality Rate
        - » Gap has narrowed from 17 to 6 (per 1,000) in developed countries and from 107 to 44 developing countries.
      - Life Expectancy
        - » Gas has not narrowed.
      - GNI Per Capita
        - » Gap in wealth between developed and developing countries has widened.









# Why Do Countries Face Obstacles to Development?

- Making Progress in Development
  - Fair Trade
    - Defined: Commerce in which products are made and traded according to standards that protect workers and small businesses in developing countries.
      - Ex. In North America, Ten Thousand Villages is the largest fair trade organization in North America.
    - Because fair trade organizations bypass distributors, a greater percentage of the retail price makes it way back directly to the producers.
    - Fair Trade requires employers to pay workers fair wages, permit union organizing, and comply with minimum environmental and safety standards.





# Summary

- The HDI measures the level of development of each country. It is calculated by combining three measures: standard of living, a long and healthy life, and access to knowledge.
- The UN has not found a single country in the world where the women are treated as well as the men.
- Development depends on abundant low-cost energy.

# Summary

- To develop more rapidly, developing countries must adopt policies that successfully promote development and find funds to pay for it.