

Global Population 1

Patterns & Distribution

# Outline

1. Population growth patterns
2. Historical global populations
3. Global population distribution
4. Urbanization

# 1. Population growth patterns

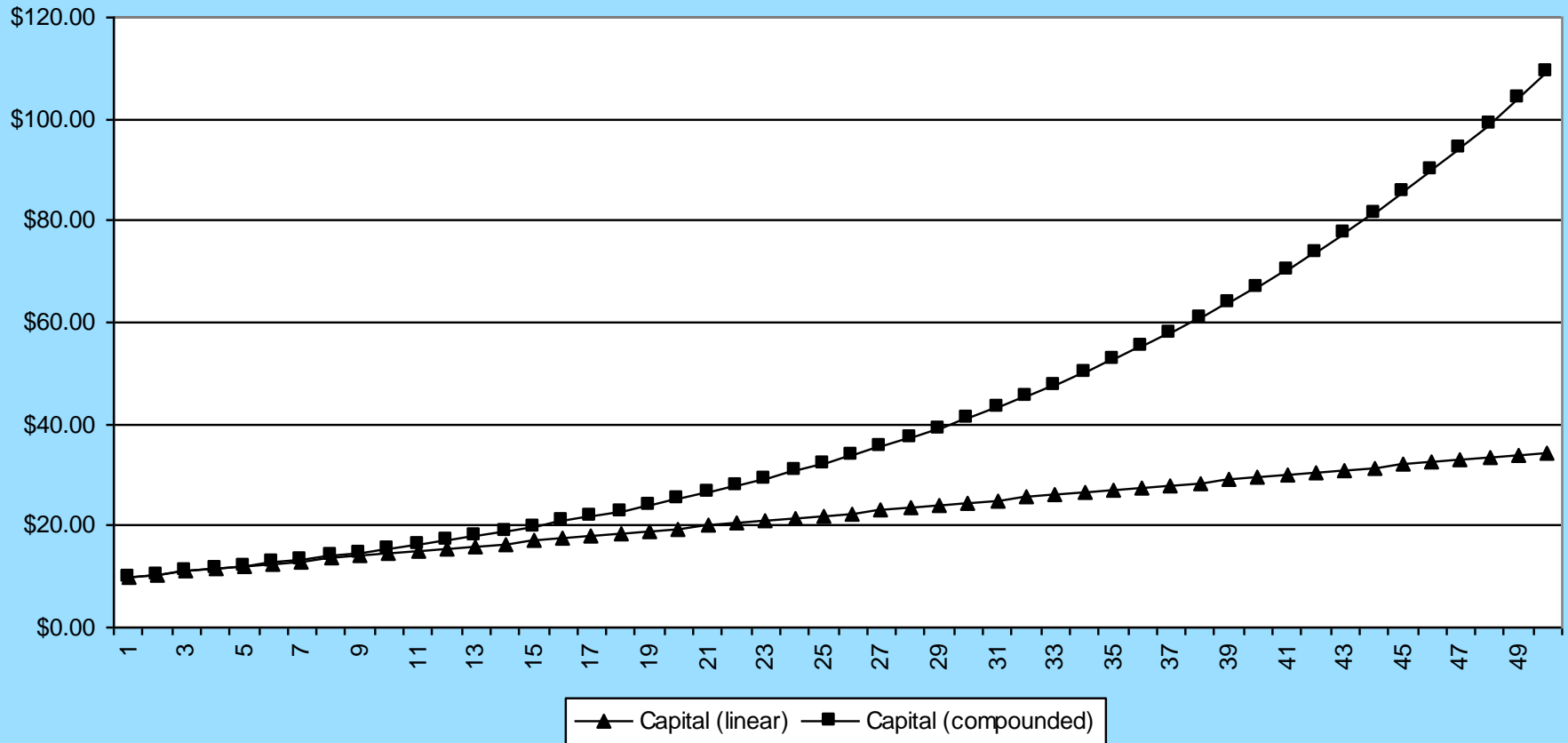
Populations grow at different rates, according to a number of factors:

- birth rate
- death rate
- fertility

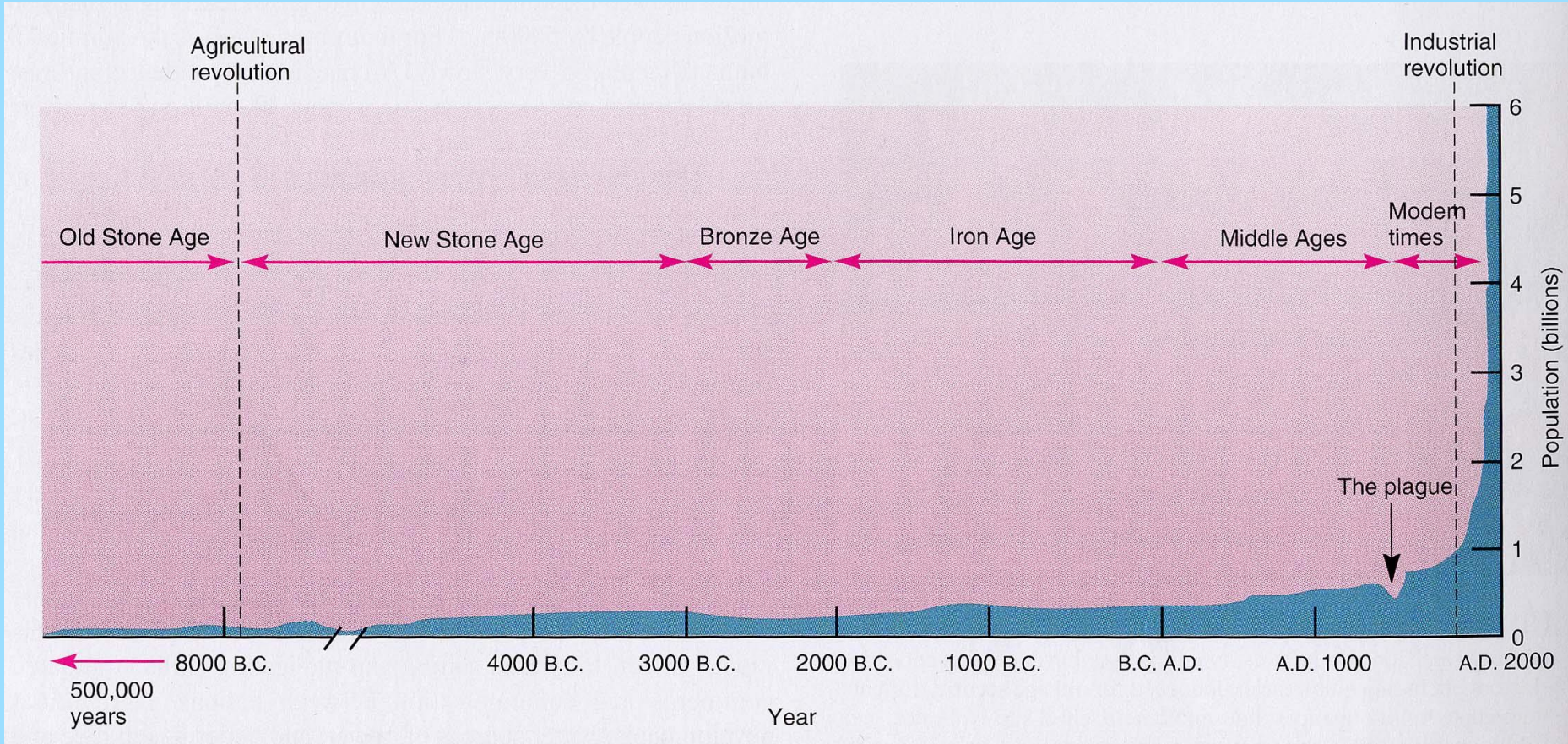
The mathematical growth rate is crucial to understanding populations but is not often apparent.

# Linear & exponential growth patterns

Linear & Exponential Growth

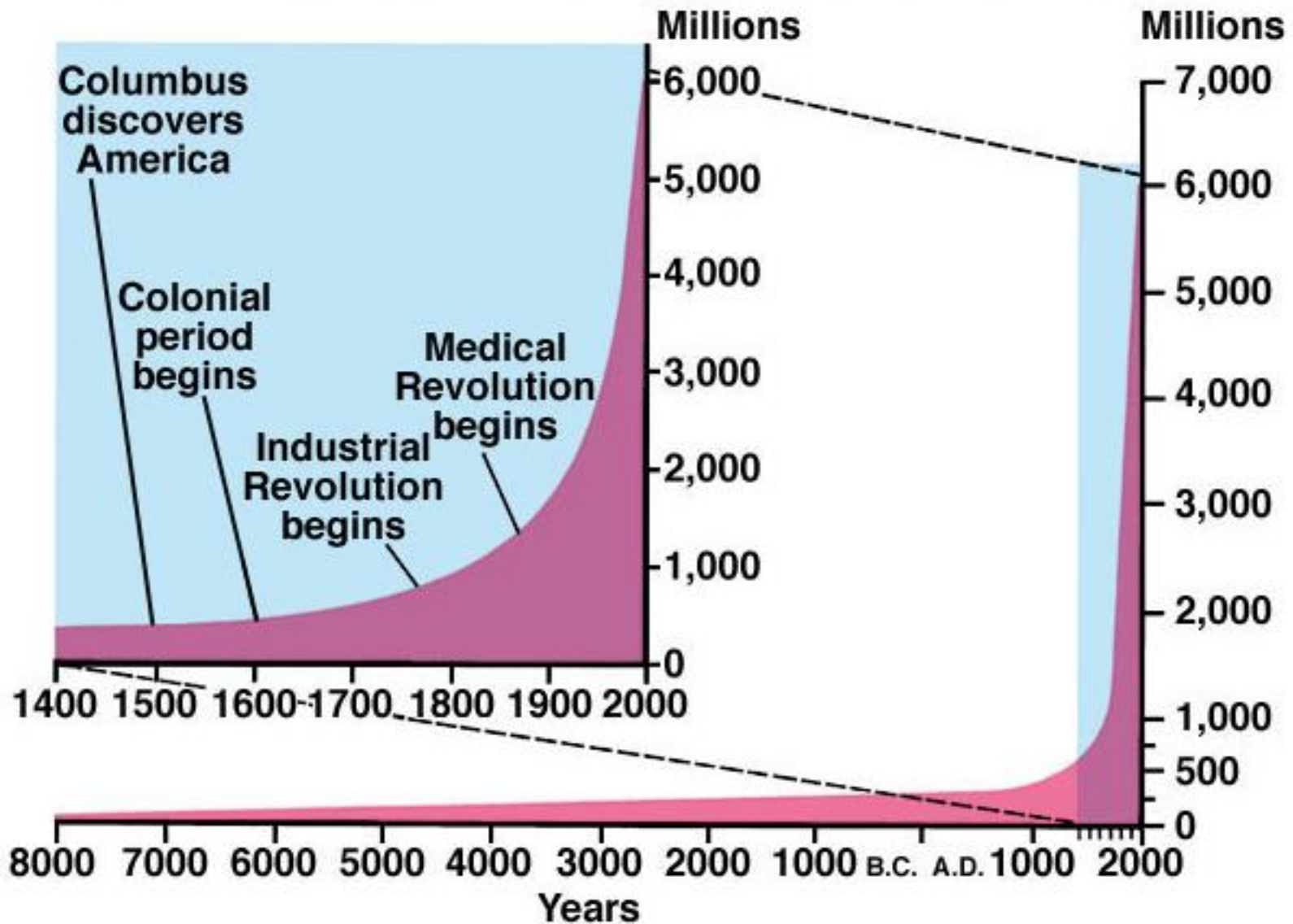


# 2. Historical global populations

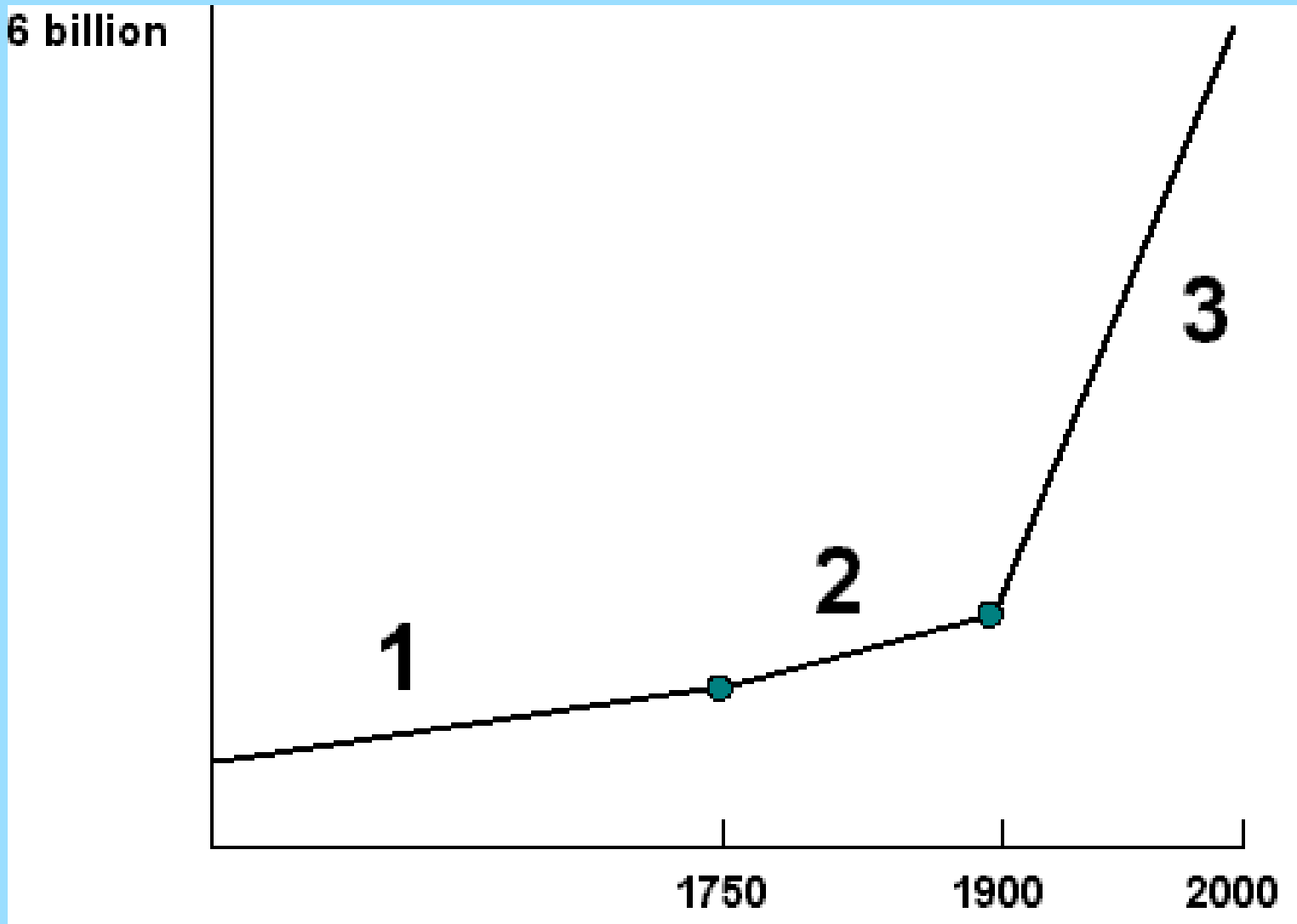


Note the J-shaped curve

# Growth 8000 B.C. – A.D. 2000



# General Stages in World Population Growth



## **WORLD POPULATION: LAST 2000 YEARS**

<b>Year</b>	<b>Population</b>	<b>Approximate Annual Growth Rate</b>	<b>Approximate Doubling Time</b>
1	250 million	-	-
1650	500 million	0.04%	1650
1804	1 billion	0.35%	155
1927	2 billion	0.90%	125
1974	4 billion	2.0%	35
1985	5 billion	1.7%	41
1999	6 billion	1.5%	46



Global population as of  
Jan 1, 2018

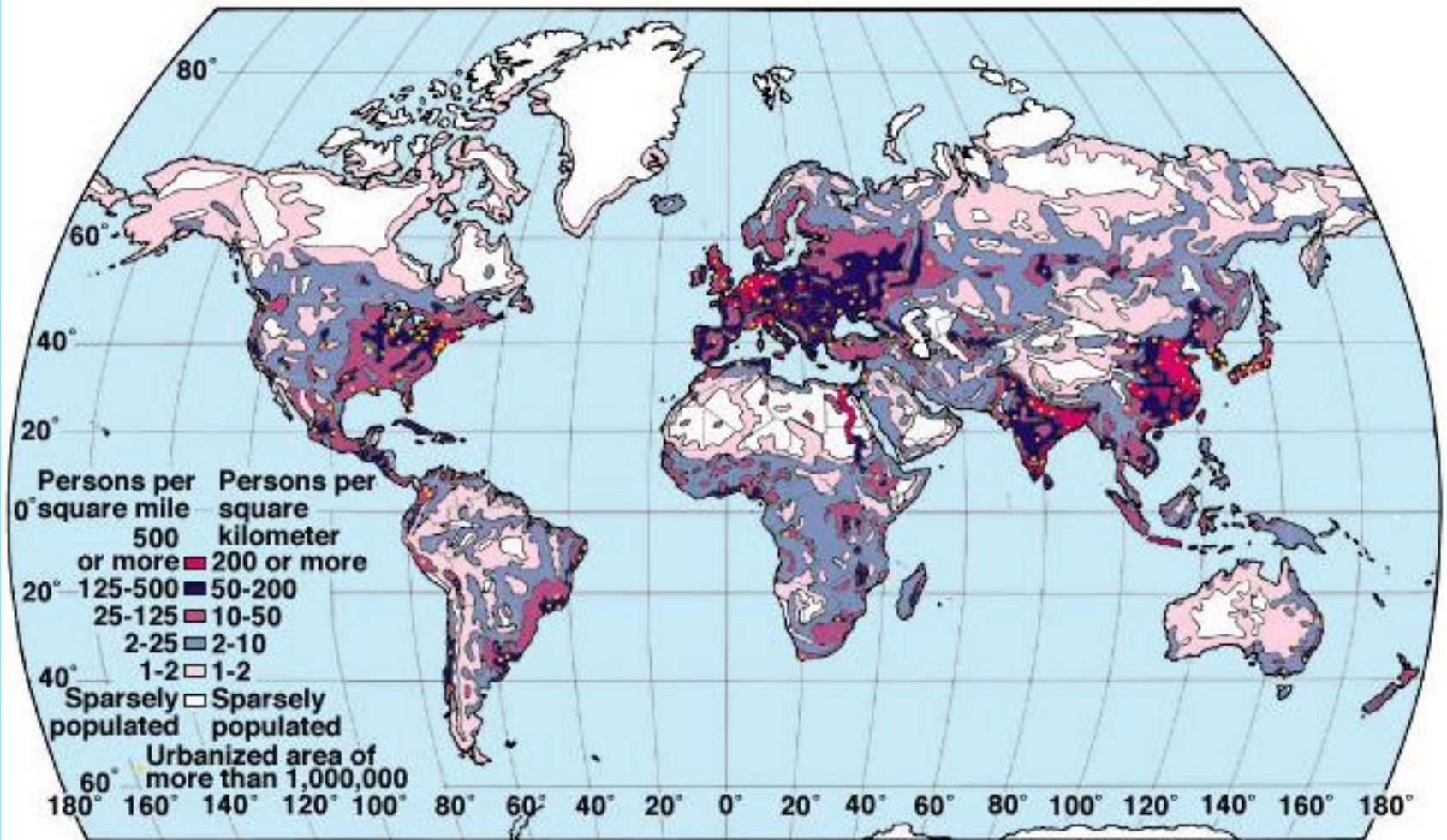
7,444,443,881

# 3. Global population distribution

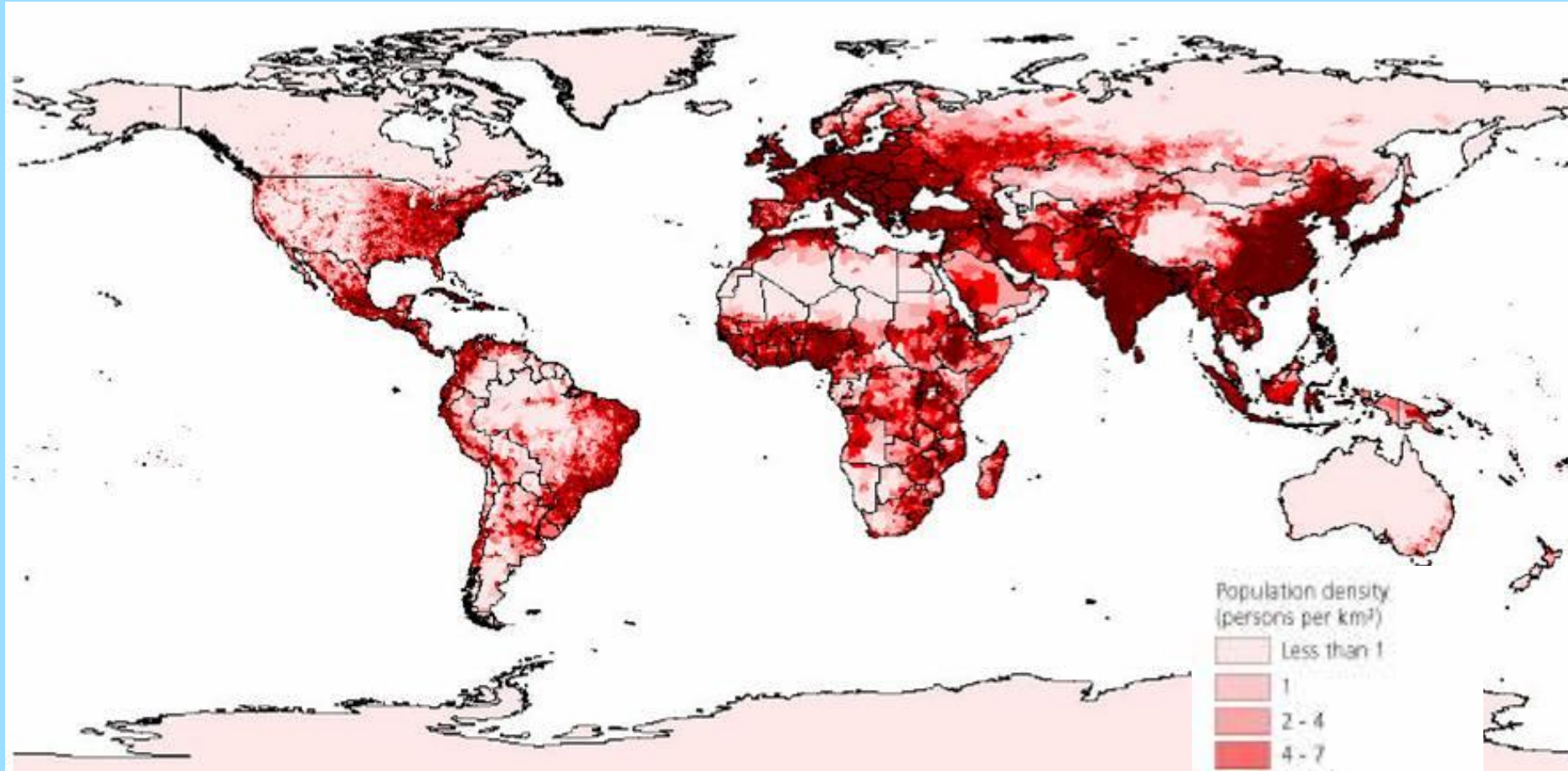
The major geographic characteristic is the unevenness of the distribution:

- some land areas are uninhabited (high Arctic)
- others areas are sparsely settled (most of Canada)
- others are more dense (eastern North America)
- there are some areas of extremely high concentration (New York)

# World Population Density

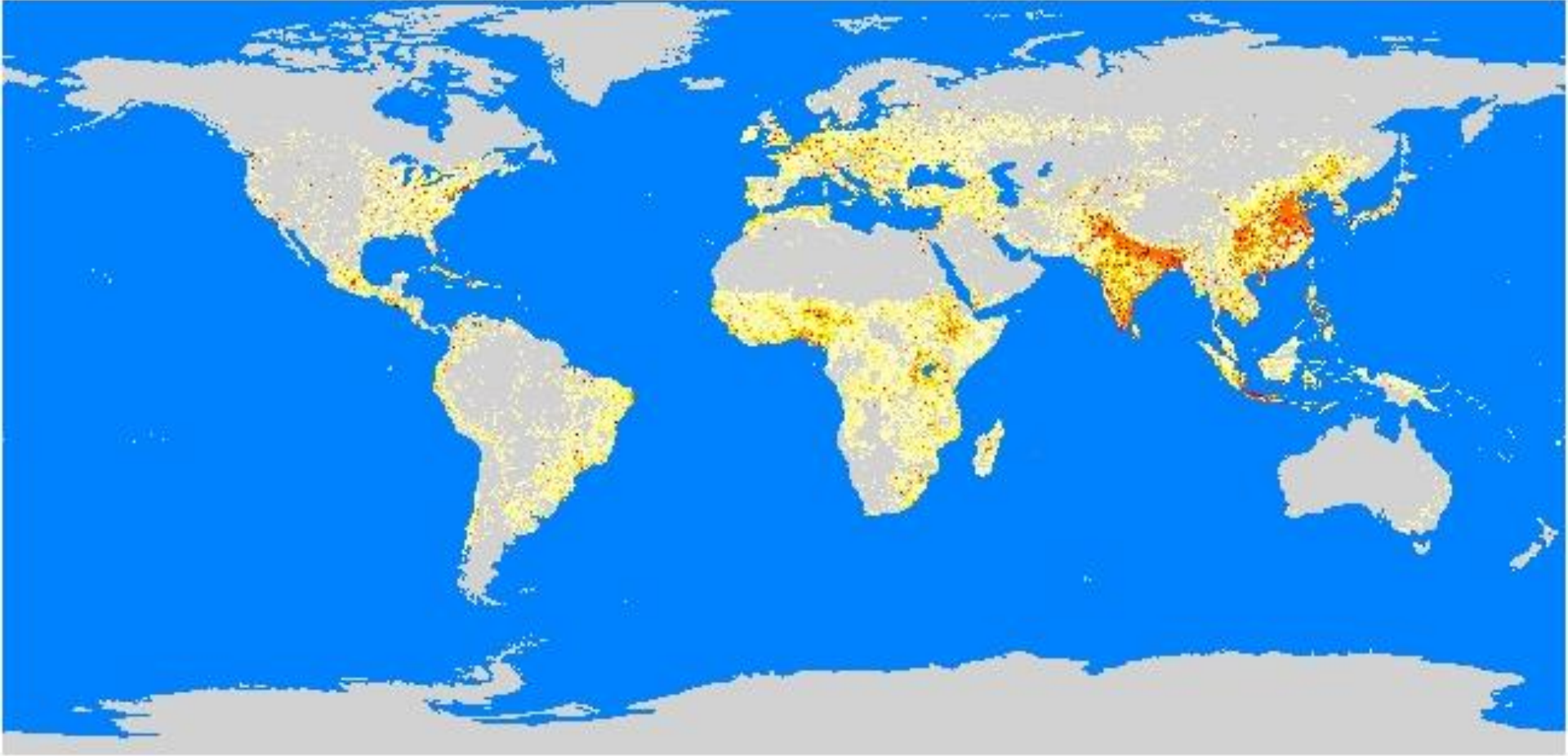


# Global population density 1995



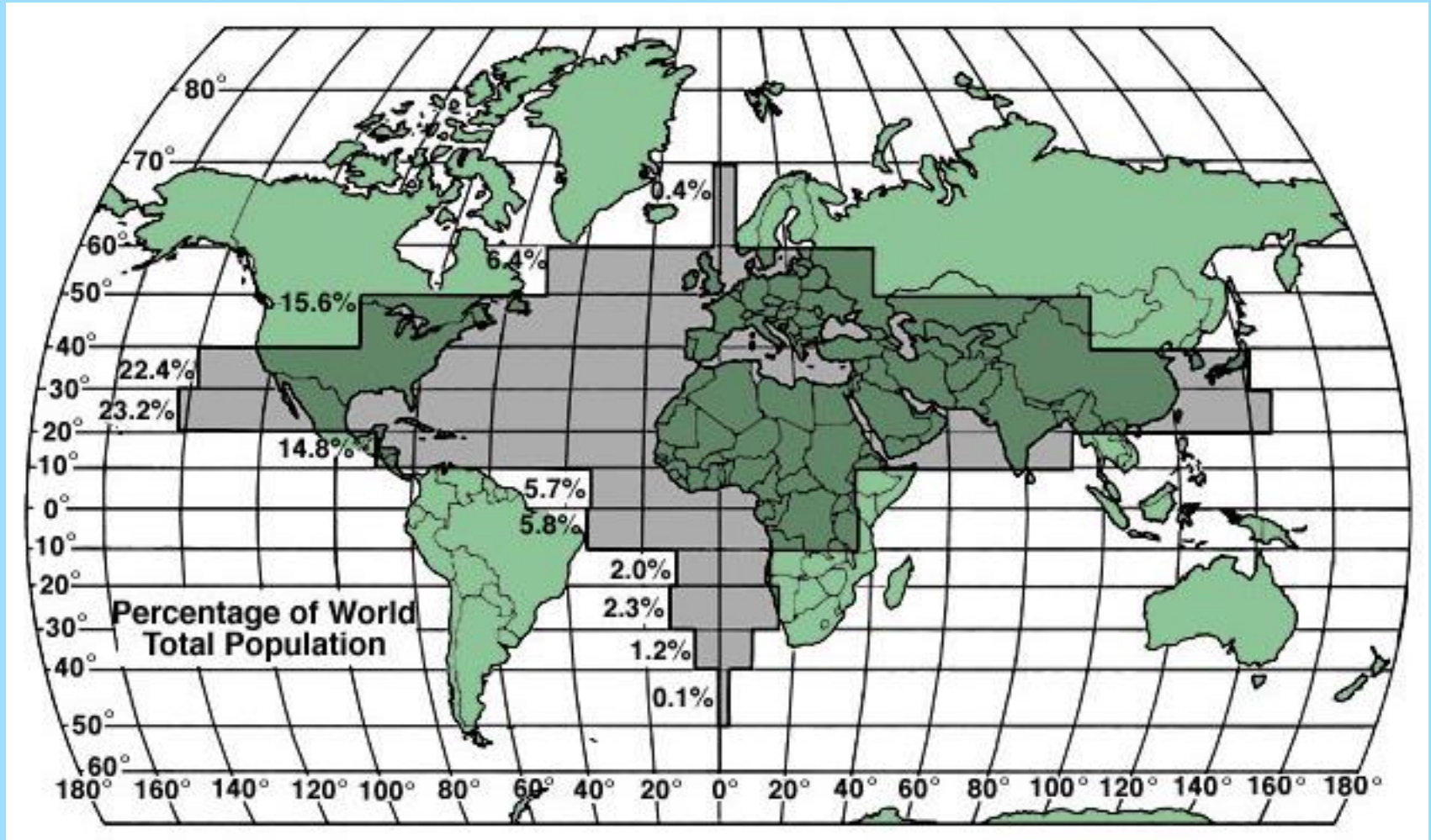
Center for International Earth Science Information Network, 2000

# Global Ambient Population (2002)



Data sources: roads, slope, land cover, nighttime lights

# Northern Hemisphere Dominance



# How some people see population distribution

66% of global pop lives within 500km of coastline

70% of industries within 350km of coastline

Effective range of an F18E Super Hornet - 2,346 km



Now you know why the USA is a global superpower – they can read a map

# 5 key aspects to uneven population distribution

1. 90% of the world's people live north of the equator; two-thirds of them in latitudes 20° to 60° N.
2. Majority of global population lives on a fraction of the earth's surface:
  - half live on 5% of land.
  - two-thirds live on 10% of land.
  - 90% live on less than 20% of land.
3. People tend to congregate at lower elevations.



# 5 key aspects to uneven population distribution

4. Continental margins are typically favoured and are therefore more densely settled.

5. There are 4 major clusters of population:

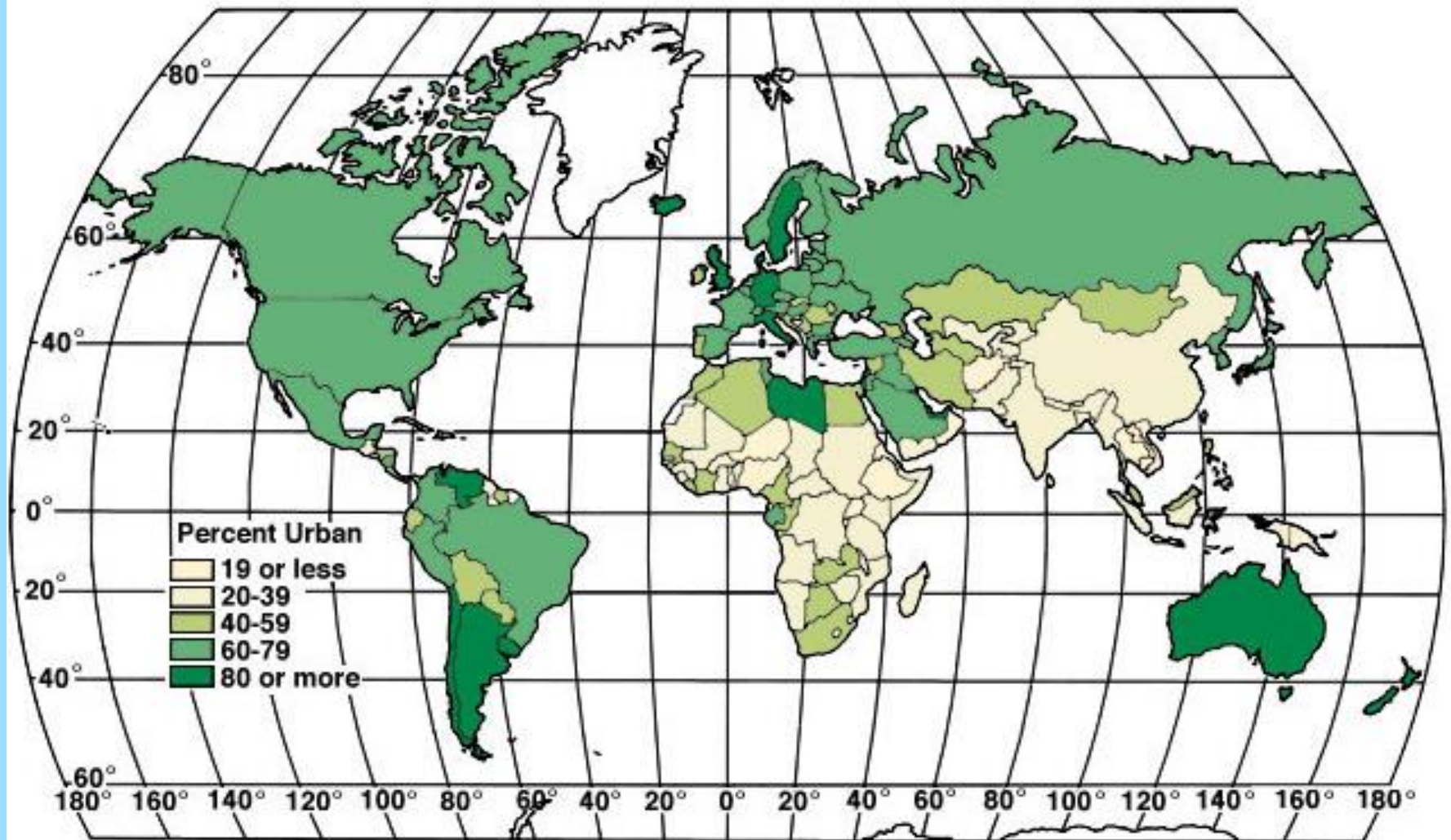
- East Asia
- South Asia
- Europe
- North-east Anglo-America

# 4. Urbanization

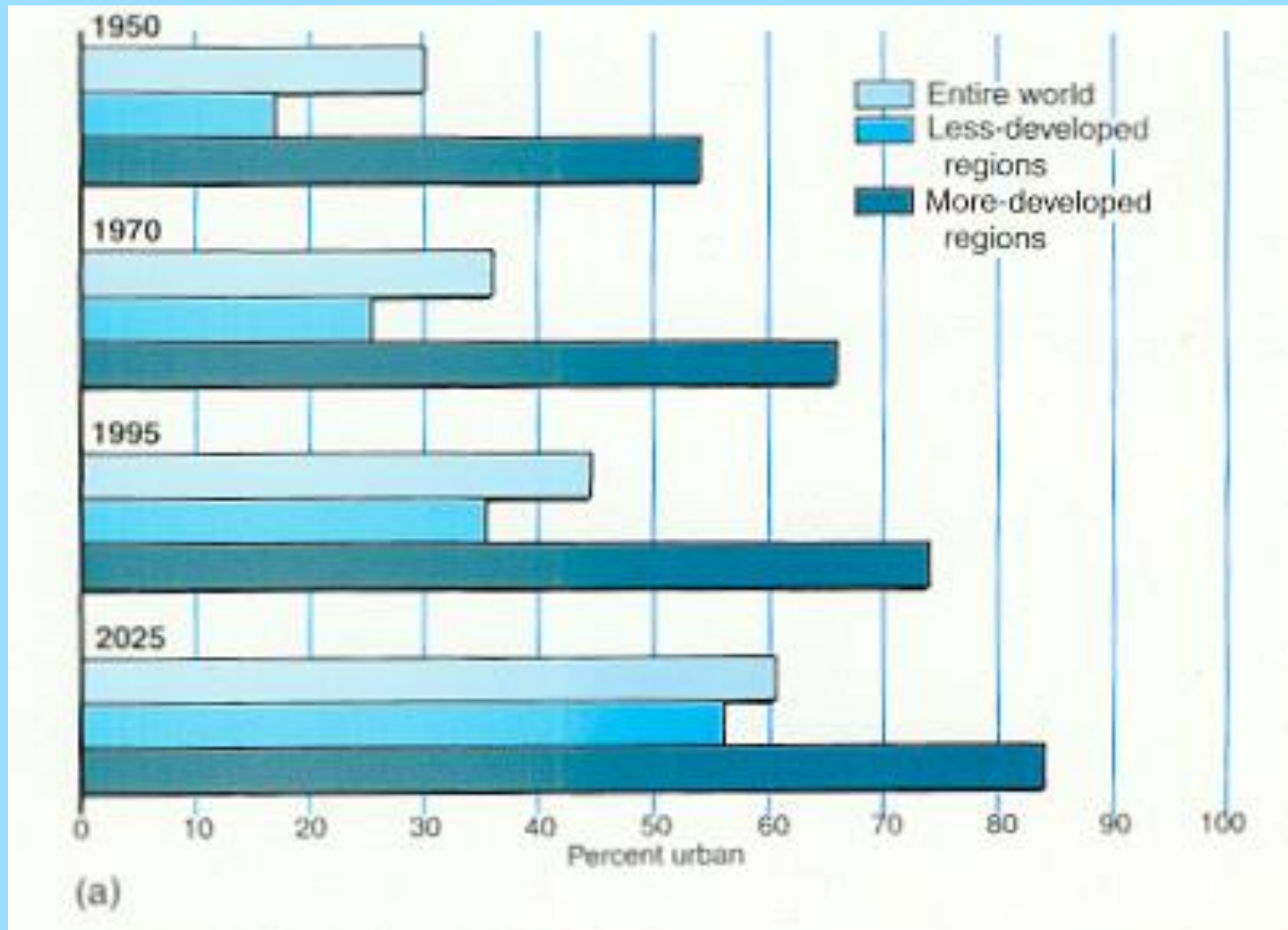
One of the most important aspect of world population distribution is the geographical pattern of urbanization



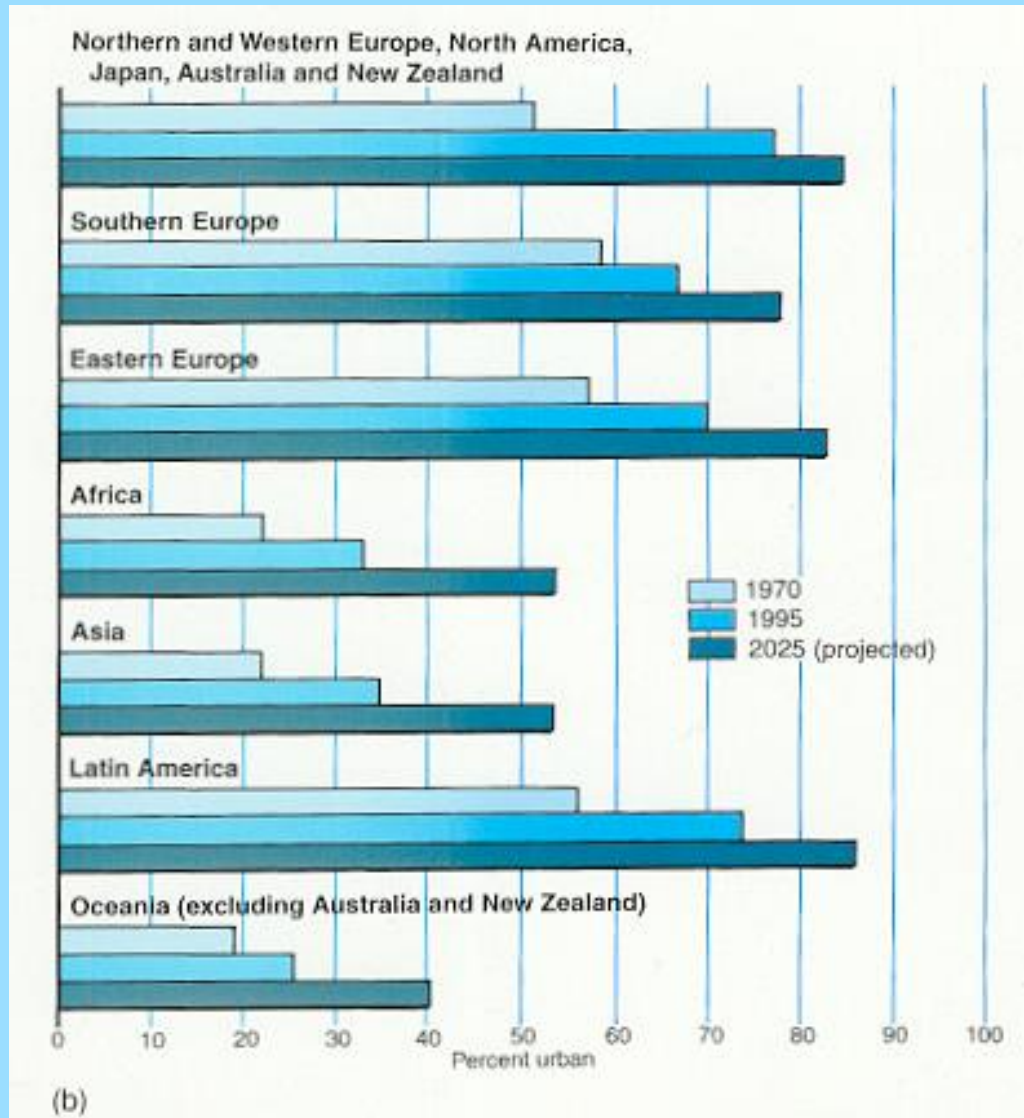
# Urban Population Percentage



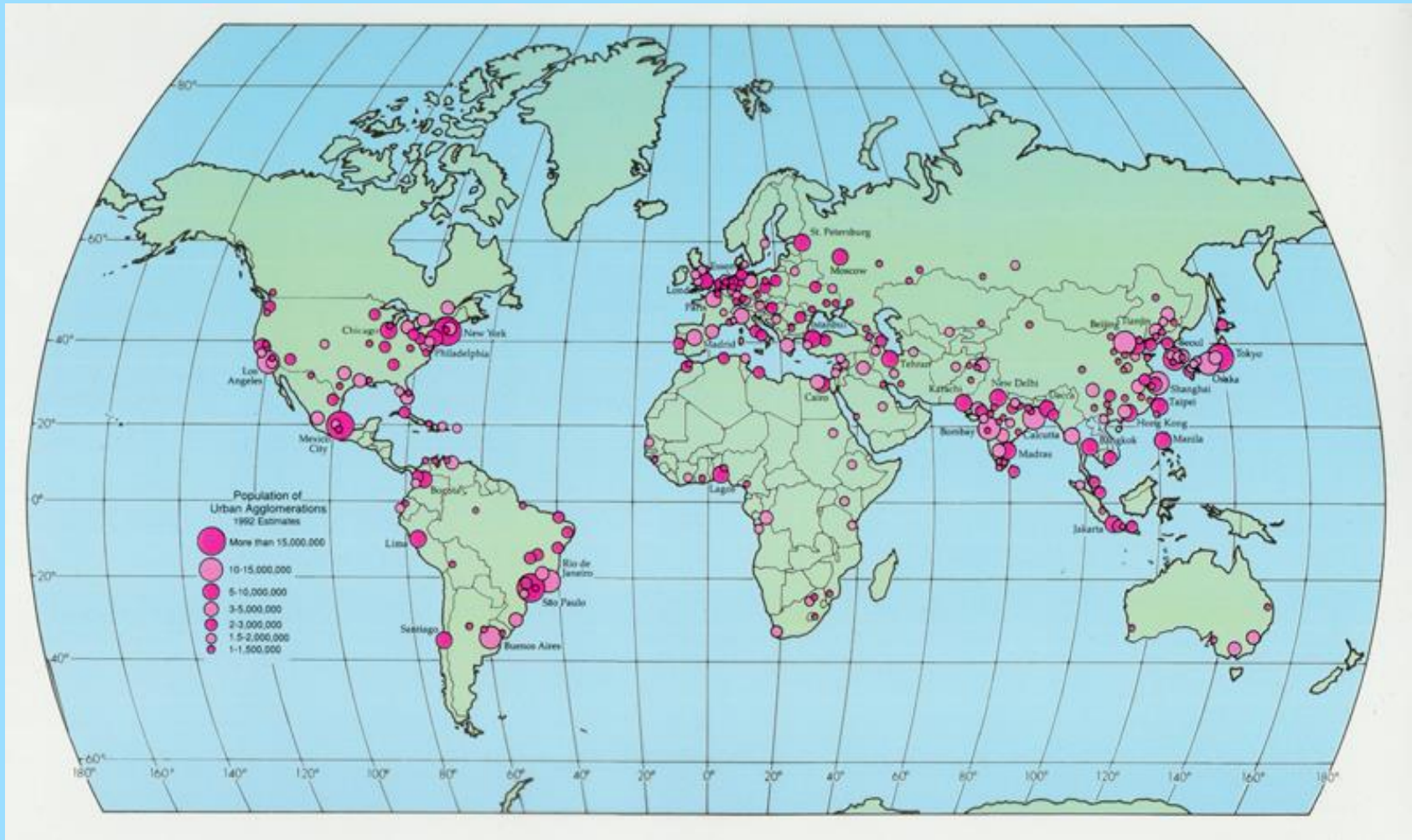
# World Population: % Urban



# World Regions: % Urban



# World Cities > 1 million





**Figure 12-3** The world's 15 megacities—defined as 10 million or more inhabitants—as of 1995. (Data from United Nations Population Division)

# Urbanization – bad aspects

Concentration of people.

Social problems – poverty, crime, quality of life.

Consumption of resources.

Land conversion.

Production of waste products:

Water pollution

Air pollution/smog



# Urbanization – good aspects

Land made available for forestry, agriculture, etc.

Wastes can be more easily treated and especially recycled.

People are closer to:

- education
- essential services (social, medical, gov't)
- family planning facilities, etc.