Outline

Urbanization and Urban Growth

A. Urban populations are attracting more and more people throughout the world, developing into centers of poverty.
  1. About one half of the world's people live in cities/densely populated urban areas, drawn there for better jobs and a better life.
  2. Cities provide jobs, food, housing, a better life, entertainment, and freedom from religious, racial, and political conflicts of village life.
  3. People are pushed to cities by poverty, no land, declining work, famine, and war.

B. Urban trends that affect urban growth are:
  1. The number/proportion of people living in urban areas is growing.
    a. Most urban areas are along countries' coastal areas.
    b. Most huge urban areas are in developing countries.
  2. The number of large cities (a million or more people) is increasing rapidly.
    a. Megacities or megalopolises contain 10 million$^+$ people.
    b. Megalopolis is a merger of a city (cities) and adjacent urban areas; two such areas are Bowash (Boston-Washington) and Chipitts (Chicago-Pittsburgh).
  3. Urban population is rapidly increasing in developing countries.
  4. Urban growth is much more rapid in developing countries, but developed countries will be 84% urbanized by 2030.
  5. Poverty is becoming more common in urban areas, especially in developing countries.

C. Three of four Americans live in metropolitan areas; about half of them live in suburban areas. These urban areas are cities with at least a population of 50,000 people.
  1. People first migrated from rural areas to large central cities.
  2. Then, people migrated from large central cities to suburbs/smaller cities.
  3. Next, people migrated from the North and East to the South and West (1980--).
  4. Finally, some have migrated away from urban areas back to rural areas (1990--).

D. Urban life's quality in America has improved but problems remain.
  1. Overall, people have better working and housing conditions and improved air and water quality. City services have improved.
  2. Older cities have deteriorating services and aging infrastructures.
    a. Budget cuts compromise services and infrastructures.
    b. Poverty in cities is rising, as is unemployment.

E. Urban areas tend to sprawl outward and eat up surrounding countryside—urban sprawl
  1. Several factors promoted urban sprawl in the U.S.
  2. Undesirable consequences of urban sprawl are prevalent although many people prefer living in sprawling suburbs and exurbs
  3. As sprawl continues, metropolitan areas join one another to form a megalopolis; e.g. Bowash (Boston-Washington D.C.)

Urban Resource and Environmental Problems

A. The advantages of urbanization:
  1. Cities are centers of economic development, jobs, commerce, and transportation.
  2. Urban populations are generally healthier with better access to medical care, family planning information, education, and social services.
  3. Recycling is more feasible and environmental protection is better supported.
  4. People concentrated in an area preserves biodiversity and wildlife habitats.

B. The disadvantages of urbanization:
  1. Cities do not sustain themselves; although urban dwellers occupy just 2% of the earth's land area, they consume about three-fourths of the earth's resources, thus they are unsustainable systems and have large ecological footprints
  2. Cities are often plagued with problems such as a loss of plants (biodiversity), water problems

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(demand exceeds supply and water becomes polluted), pollution and health problems, noise pollution, and climate and artificial light (includes urban heat islands and city lights confusing endangered sea turtles), and poverty and social problems like high crime rates.

C. The urban poor and the rural poor both live in unhealthy conditions.
1. Large cities have squatter settlements and shantytowns for the poor—places that provide metal, plastic sheets, scrap wood, and discarded packing crates to build shelters. Some places develop communities with hope for a better life.
2. These urban settlements have the worst/nonexistent services: lack of clean water, sewers, electricity, etc. There are often severe air, water, and hazardous waste pollutants.
3. Governments often force people away; they resettle somewhere else and the cycle begins again.
4. The rural poor tend to have more children and less educational opportunity.
5. Mexico City is an environmental nightmare and an urban disaster.
   a. The negatives of Mexico City are overwhelming: rapid population growth, severe pollution, disease, and poverty.
   b. About 19 million Mexicans lives in the city; they suffer from high unemployment, noise, traffic congestion, soaring crime, etc. Barrios are the slum settlements.
   c. Lack of sewage services has produced bacteria-laden, dried, human excrement, which is spread by the wind; it is called fecal snow and causes widespread salmonella and hepatitis.
   d. Breathing the air in Mexico City is the same as smoking three packs of cigarettes per day.
   e. The city's air and water pollution causes 100,000 premature deaths per year.

Transportation and Urban Development
A. The amount of available land determines if a city grows outward or upward as well as the type of transportation systems used.
1. Those in compact cities, those growing upward, use mass transit systems, walk, or ride bicycles.
2. Those people in sprawling cities use individual automobile transportation.
B. Cars rule in the United States because of large areas of relatively cheap land.
1. The U.S. is overrun with automobiles, with 4.6% of the world's population, its has almost a third of the worlds 800 million motor vehicles
2. More than half of American vehicles are SUVs, light trucks and vans.
C. Cars have advantages and disadvantages.
1. Cars make people mobile and fuel the economy.
2. Cars kill people, pollute, and waste time when traffic jams occur.
D. To reduce automobile use, users must pay for the car's harm by paying greater gasoline taxes, giving up the government subsidies for cars, subsidizing mass transit systems, and raising use fees.
E. Political pressures and the love of the automobile interfere with efforts to decrease the importance/presence of automobiles. Fast, efficient, and reliable mass transit is not available and people live all over, not in well-defined areas.
F. The use of any alternative to automobile transportation—bicycles, walking, scooters, buses, subways, rail systems, etc.—would benefit the U.S. environment.
G. Rapid rail systems have been successful in Hong Kong, Europe and Japan and now several U.S. cities are exploring this option to connect large urban areas.
H. In the early 1900s the U.S. has a highly successful streetcar system, but it was bough up and destroyed by several companies in order to sell cars and buses.

Urban Land-Use Planning and Control
A. Most land-use planning in the United States is based on continued population growth and therefore leads to urban sprawl and environmental degradation.
B. Zoning can be used to control growth and protect certain areas, but can also discourage innovative solutions to environmental problems.
C. Smart growth discourages urban sprawl, protects ecologically sensitive land and water, and

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develops environmentally sustainable urban areas. These methods help channel growth to areas where it does less harm.
D. Oregon developed an efficient land-use planning process in which land was permanently zoned, all urban areas had growth boundaries, and gave control of land-use planning to the Land Conservation and Development Commission.
E. Open space can be preserved by urban growth boundaries, greenbelts, small and large parks, and cluster developments.
F. Cluster developments and mixed-used housing and villages are more energy efficient and environmentally sound than the familiar suburban housing developments.

Making Urban Areas More Sustainable and Desirable Places to Live
A. There is a growing movement toward mixed-use villages and neighborhoods where shopping, working, and living can all occur within walking distance.
B. Cluster development living units are clustered together and larger chunks of land are left for open space.
C. Some communities are embracing new urbanism which is guided by principles of walkability, mixed use and diversity, quality urban design, environmental sustainability, and smart transportation.
D. Ecocities are designed to allow people to walk, bike, or take mass transit for most of their travel; ecocities recycle and reuse most of their wastes, grows their own food, and protects biodiversity by preserving land.

Summary

1. Almost half of the world's population lives in urban areas and half in rural areas. Government policies, poverty, lack of land to grow food, declining agricultural jobs, famine, and war that force people out of rural areas are all factors that determine how urban areas develop.

2. Urban areas are rarely self-sustaining, threaten biodiversity, destroy and damage ecosystems, lack trees, grow little of their own food, concentrate pollutants and noise, spread infectious disease, and are centers of poverty, crimes, and terrorism.

3. Urban areas relying on mass transportation spread vertically and urban areas relying on automobiles spread horizontally. Advantages of automobiles include convenience, personal benefits, and boosted economies, Disadvantages include air pollution, promotion of urban sprawl, increase in death rate, and time-and gas-wasting traffic jams. Advantages of bicycles and motor scooters include low cost, little to no air or noise pollution, require little space, and are energy efficient. Disadvantages include little accident protection, impractical for long distances, can be tiring, little parking, and gas scooter engines emit high air pollution. Mass transit rail systems are more energy efficient than cars, produce lower air pollution, require less land, cause fewer injuries and deaths, and reduce car congestion. Disadvantages include high cost to build and maintain, rigid schedules, noise pollution, and they are cost effective only in densely populated areas. Buses are more flexible than rail systems, can easily be rerouted, cost less to develop, and can reduce car use. Disadvantages include rigid schedules, noise pollution, and they are not always cost efficient. Rapid rail systems can reduce car and plane travel, are ideal for long trips, and re more efficient than cars and planes. Disadvantages include high operation and maintenance cost, noise pollution, and they are not always cost efficient.

4. Land-use planning, zoning, and smart growth can be used for planning and controlling urban growth.

5. Cities can be made more sustainable and more desirable places to live by creating parks, greenbelts, urban growth boundaries, cluster developments, mixed-use villages, greenways, and ecocities.

SUSTAINING HUMAN SOCIETIES
Chapter 23
Sustainable Cities

"It's A Small World After All"

Objectives

1. List five worldwide trends in population distribution. Describe the four major shifts in population distribution in U.S. history. Summarize the factors that contribute to urban growth.
2. List and briefly describe the economic, cultural, health, and environmental tradeoffs of living in urban areas.
3. Summarize the following urban environmental problems: vegetation, water runoff and flooding, heat islands and dust domes, solid-waste disposal, air pollution, noise pollution, human health, land conversion, social disruption. List three ways that urban areas positively affect the environment.
4. List the pros and cons of the major urban transportation options: individual transit (walking, biking, motorized vehicles) and mass transit (rail systems and buses). List three policies that contribute to a positive feedback loop creating more dependence on automobiles. Describe three policies that would create negative feedback loops.
5. Differentiate between conventional and ecological land-use planning. List two means by which local governments can control the rate of development. Summarize obstacles to more ecological land-use planning.
6. Summarize urban maintenance and repair problems.
7. Identify one positive loop that tends to harm urban areas. Briefly consider ways to counteract that loop.
8. List five approaches to improving urban life. Choose one case study from your textbook. Evaluate how far your chosen urban area has come in implementing these five approaches.

Key Terms **(Terms are listed in the same font style as they appear in the text.)**

aging infrastructure (p. 551)	*fecal snow* (p. 557)
barrios (p. 557)	*full-cost pricing* (p. 559)
bicycle (p. 559)	*fundamental land* (p. 563)
Bowash (p. 525)	*green city* (p. 566)
budget crunches (p. 551)	*greenbelt* (P. 564)
buses (p. 560)	*heavy-rail* (p. 559)
car-sharing networks (p. 559)	*immigration* (p. 549)
cluster development (p. 564)	**land-use planning** (p. 562)
compact cities (p. 558)	*light pollution* (p. 556)
deteriorating services (p. 551)	*light-rail* (p. 559)
dispersed cities (p. 558)	*megacities (megalopolises)* (p. 549)
ecocities (*green cities*) (p. 548)	*megalopolis* (p. 552)
ecocity (p. 566)	*metropolitan areas* (p. 550)
ecological footprints (p. 554)	*mixed-use and diversity* (p. 565)
environmental sustainability (p. 565)	*natural increase* (p. 549)
new suburbanism (p. 565)	*smart transportation* (p. 565)
new urbanism (p. 565)	*squatter settlements* (p. 556)
property taxes (p. 562)	*tax shift* (p. 559)
pull factors (p. 549)	**unsustainable system** (p. 544)
push factors (p. 549)	**urban growth** (p. 549)
quality urban design (p. 565)	*urban growth boundary* (p. 564)
rapid-rail system (p. 560)	*urban heat island* (p. 555)
rising poverty (p. 551)	**urban sprawl** (p. 551)
shantytowns (p. 556)	**urbanization** (p. 549)
slums (p. 556)	*walkability* (p. 565)
smart growth (p. 562)	*zoning* (p. 562)