

Exercise walk-through

6.11

Challenges of Urban Sustainability

AP Human Geography

Change and sustainability

- **Suburbanization** and urban sprawl consume land.
- **Gentrification** raises values and can displace residents.
- **Smart growth** and greenbelts support sustainability.



Uneven growth shapes who gets housing

Key points

Site = physical; **situation** = relative position

Rank-size vs **primate-city** distributions

Three models: **concentric**, **sector**, **multiple nuclei**

Sprawl + gentrification
are key urban challenges

Worked example – the command word is the question

“Compare the concept of a metacity with the concept of a world city.” (real AP question)

“A metacity is defined by size – a continuous urban area of more than 20 million people – while a world city is defined by influence, acting as a command centre for the global economy. Tokyo can be both, but a large metacity in a poorer country may not be a world city.”

Compare needs an **explicit point of difference** (size versus influence), **not** two definitions sitting side by side.

Exam tips

- Separate a city's **site** (physical setting) from its **situation** (position relative to others).
- Apply the **rank-size rule** (the n th city is about $1/n$ of the largest) and spot a **primate city**.
- Match a city description to the right model: **concentric zone**, **sector**, or **multiple nuclei**.
- Link **land value** to density – costly central land is used by building upward.
- Discuss change with **suburbanization**, **sprawl**, and **gentrification**, and **smart-growth** responses.

Exercises 2.1-2.2

2.1 Explain how urban sprawl harms sustainability.

[2]

2.2 State two challenges a fast-growing city faces in providing for residents.

[2]

Exercises 2.1·2.2

2.1 Explain how urban sprawl harms sustainability. [2]

2.1

- it increases driving/emissions and the cost of services; it consumes farmland and habitat
-

2.2 State two challenges a fast-growing city faces in providing for residents. [2]

2.2

- any two of: clean water/sanitation, affordable housing, transit, waste, power

Exercise 2.3 (a)

2.3 A booming city has spreading informal settlements without proper sanitation.

(a) State one health risk this creates.

[1]

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(a)

- spread of disease from poor water/sanitation

Exercise 2.3 (b)

2.3 A booming city has spreading informal settlements without proper sanitation.

(b) State one sustainable response.

[1]

Exercise 2.3 (b)

2.3 A booming city has spreading informal settlements without proper sanitation.

(b) State one sustainable response.

[1]

(b)

- invest in water/sanitation, affordable formal housing, upgrading

Exercises 3.1-3.2

3.1 A major sustainability problem caused by urban sprawl is

[1]

☐

A less driving

B higher car use and emissions

C cheaper services

D protected farmland

3.2 A sustainable response to unaffordable city housing is to

[1]

☐

A ban all building

B build affordable, denser housing near transit

C expand low-density sprawl

D remove sanitation

Exercises 3.1-3.2

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3.1 B

- sprawl increases driving and emissions

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- A ban all building
- B build affordable, denser housing near transit
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3.2 B

- affordable dense housing near transit is a sustainable fix

Exercise 3.3 (a)

3.3 Cities produce most of the world's greenhouse-gas emissions.

(a) State one reason cities emit so much.

[1]

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(a)

- concentrated transport, energy use, industry, and buildings

Exercise 3.3 (b)

3.3 Cities produce most of the world's greenhouse-gas emissions.

(b) State one policy to cut a city's emissions.

[1]

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(b)

- public transit, green buildings, renewable energy, smart growth