Pearson Edexcel International GCSE (9–1)

Friday 22 November 2024

Morning (Time: 1 hour 45 minutes)

Paper reference **4GE1/02**

Geography

PAPER 2: Human geography

You must have:
Resource Booklet (enclosed), calculator

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- In Section A, answer **two** questions from Questions 1, 2 and 3.
- In Section B, answer **one** question from Questions 4, 5 and 6.
- In Section C, answer **one** question from Questions 7, 8 and 9.
- Answer the questions in the spaces provided
  – *there may be more space than you need*.
- Calculators may be used.
- **Where asked you must show all your working out with your answer clearly identified at the end of your solution.**

Information

- The total mark for this paper is 105.
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question*.

Advice

- Read each question carefully before you start to answer it.
- Check your answers if you have time at the end.

Turn over ▶

SECTION A

Answer TWO questions from this section.

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

If you answer Question 1, put a cross in the box ☐ .

1 Economic activity and energy

(a) (i) Identify **one** source of renewable energy.

(1)

☒ **A** coal

☒ **B** gas

☒ **C** oil

☒ **D** wind

(ii) State **one** advantage of using renewable energy.

(1)

....

(b) Identify **one** disadvantage of using shale gas as an energy source.

(1)

☒ **A** fracking is cheap

☒ **B** groundwater pollution

☒ **C** refills water reservoirs

☒ **D** supports biodiversity

(c) Study Figure 1a in the Resource Booklet.

Suggest **one** way these factories could become more sustainable.

(2)

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(d) State **one** factor that has increased global demand for energy.

(1)

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(e) Explain **one** human and **one** physical factor that can affect the location of primary sector activities.

(4)

human

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physical

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(f) Study Figure 1b in the Resource Booklet.

Suggest **one** possible reason for the distribution shown.

(3)

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(g) Thomas Malthus developed a theory about the relationship between population and resources.

Explain **two** of the ideas from this theory.

(4)

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(h) Study Figure 1c in the Resource Booklet.

Analyse possible reasons for the differences in employment structure.

You **must** refer to the resource in your answer.

(8)

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(Total for Question 1 = 25 marks)

2   **Rural environments**

(a) (i) Identify **one** characteristic of intensive farming.

(1)

☒ **A** high inputs

☒ **B** little surplus crops

☒ **C** low yields

☒ **D** small areas of land used

(ii) State **one** benefit of using genetically modified (GM) crops.

(1)

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(b) Identify **one** type of farm diversification.

(1)

☒ **A** building a new road to the farm

☒ **B** limiting the amount of pesticides used

☒ **C** opening a farm shop

☒ **D** reducing the number of crops grown

(c) Study Figure 2a in the Resource Booklet.

Describe the characteristics of this rural environment.

(2)

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(d) State **one** strategy used to make water supplies more sustainable in rural areas.

(1)

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(e) Explain **two** ways tourism can have a negative impact on rural areas.

(4)

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(f) Study Figure 2b in the Resource Booklet.

Explain how **either** temperature **or** precipitation can affect the characteristics of biomes.

(3)

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P 7 5 9 6 3 A 0 8 4 8

(g) Explain **two** ways natural ecosystems provide goods for people.

(4)

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(h) Study Figure 2c in the Resource Booklet.

Analyse the importance of the negative multiplier effect on the population structure of rural areas.

You **must** refer to the resource in your answer.

(8)

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(Total for Question 2 = 25 marks)

If you answer Question 3, put a cross in the box ⊠ .

3   **Urban environments**

(a) (i)   Identify **one** factor that has slowed down the rate of urbanisation for some areas.

(1)

⊠   **A**   counter-urbanisation

⊠   **B**   parking restrictions

⊠   **C**   rural isolation

⊠   **D**   waste disposal facilities

(ii)   State **one** cause of megacity growth.

(1)

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(b) Identify **one** region of the world which had the highest rate of urbanisation in the 2020s.

(1)

⊠   **A**   Eastern Europe

⊠   **B**   North America

⊠   **C**   Southeast Asia

⊠   **D**   Western Europe

(c) Study Figure 3a in the Resource Booklet.

Suggest **one** reason why transport is a challenge in urban areas.

(2)

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(d) State **one** food-related challenge for people living in cities.

(1)

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P 7 5 9 6 3 A 0 1 2 4 8

(e) Explain **two** advantages of building on greenfield sites.

(4)

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(f) Study Figure 3b in the Resource Booklet.

Suggest how a change shown could improve quality of life in cities.

(3)

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(g) There are different groups of people who manage social challenges in cities.

Explain **one** way planners and **one** way property developers manage such challenges.

(4)

planners

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property developers

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(h) Study Figure 3c in the Resource Booklet.

Analyse the reasons why there are land use changes in cities.

You **must** refer to the resource in your answer.

(8)

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(Total for Question 3 = 25 marks)

TOTAL FOR SECTION A = 50 MARKS

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SECTION B

Geographical enquiry

Answer ONE question only from this section.

If you answer Question 4, put a cross in the box ☒ .

4   Investigating economic activity and energy

You have studied economic activity and energy as part of your own geographical enquiry.

State the title of your enquiry.

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(a) (i)   Name **one** type of graph you used to present your data.

(1)

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(ii)   Explain **one** reason for your choice of graph.

(2)

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(b) Explain **one** qualitative primary data collection technique you used in your enquiry.

(2)

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(c) Explain **two** ways you used secondary data in your enquiry.

(4)

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(d) Suggest **one** improvement you could have made to your data analysis.

(3)

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(e) Study Figures 4a, 4b and 4c in the Resource Booklet. They show key information about the methodology, part of the data presentation and some conclusions.

> The aim of the student's enquiry was to investigate the use of renewable energy sources in a village.

Evaluate the student's data presentation method and conclusions.

You **must** refer to the resources in your answer.

(8)

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(Total for Question 4 = 20 marks)

P7 5 9 6 3 A 0 2 0 4 8

If you answer Question 5, put a cross in the box ⊠ .

5   Investigating rural environments

You have studied rural environments as part of your own geographical enquiry.

State the title of your enquiry.

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(a) (i)   Name **one** type of graph you used to present your data.

(1)

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(ii)   Explain **one** reason for your choice of graph.

(2)

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(b) Explain **one** qualitative primary data collection technique you used in your enquiry.

(2)

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(c) Explain **two** ways you used secondary data in your enquiry.

(4)

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(d) Suggest **one** improvement you could have made to your data analysis.

(3)

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(e) Study Figures 5a, 5b and 5c in the Resource Booklet. They show key information about the methodology, part of the data presentation and some conclusions.

> The aim of the student's enquiry was to investigate the impact of tourism on a village in a national park.

Evaluate the student's data presentation method and conclusions.

You **must** refer to the resources in your answer.

(8)

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(Total for Question 5 = 20 marks)

If you answer Question 6, put a cross in the box ⊠ .

6   Investigating urban environments

You have studied urban environments as part of your own geographical enquiry.

State the title of your enquiry.

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(a) (i)   Name **one** type of graph you used to present your data.

(1)

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      (ii)   Explain **one** reason for your choice of graph.

(2)

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(b) Explain **one** qualitative primary data collection technique you used in your enquiry.

(2)

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(c) Explain **two** ways you used secondary data in your enquiry.

(4)

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(d) Suggest **one** improvement you could have made to your data analysis.

(3)

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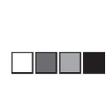
(e) Study Figures 6a, 6b and 6c in the Resource Booklet. They show key information about the methodology, part of the data presentation and some conclusions.

> The aim of the student's enquiry was to investigate how a high street shopping area had changed.

Evaluate the student's data presentation method and conclusions.

You **must** refer to the resources in your answer.

(8)

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(Total for Question 6 = 20 marks)

TOTAL FOR SECTION B = 20 MARKS

Global issues

Answer ONE question only from this section.

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

If you answer Question 7, put a cross in the box ☐ .

7   Fragile environments and climate change

(a) (i) Define the term **fragile environment**.

(1)

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(ii) Identify **one** factor that affects the distribution of coral reefs.

(1)

☒　**A**　soil pH

☒　**B**　water biodiversity

☒　**C**　water salinity

☒　**D**　wind speed

(iii) Identify **one** feature of a coral reef.

(1)

☒　**A**　algae

☒　**B**　buttress roots

☒　**C**　river delta

☒　**D**　permafrost

(b) (i) Study Figure 7a in the Resource Booklet.

Identify **two** cities at greatest risk of desertification.

(2)

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(ii) Suggest **two** reasons for the pattern shown in Figure 7a.

(4)

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(c) Explain **two** approaches to reducing water shortages.

(4)

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(d) (i) Study Figure 7b in the Resource Booklet.

Calculate the mean deforestation rate for the countries shown.

You **must** show all your workings in the spaces below.

(2)

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(ii) Describe **one** difference shown in Figure 7b.

(2)

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(e) Study Figure 7c in the Resource Booklet.

Assess the importance of the causes of climate change shown.

You **must** refer to the resource in your answer.

(6)

(f) Discuss the view:

"Countries which have contributed the most to climate change should be responsible for leading the actions to combat climate change."

Use Figures 7b and 7c from the Resource Booklet, and your own knowledge and understanding to support your answer.

You **must** refer to the resources in your answer.

(12)

(Total for Question 7 = 35 marks)

8 Globalisation and migration

(a) (i) Identify **one** feature of all transnational corporations (TNCs).

(1)

⊠ **A** creates few jobs

⊠ **B** high wages for all workers

⊠ **C** low demand on local resources

⊠ **D** operates in many countries

(ii) Identify **one** benefit a country can gain from hosting a transnational corporation (TNC).

(1)

⊠ **A** can attract further investment

⊠ **B** can cause water pollution

⊠ **C** exploitation of local workers

⊠ **D** profits often go back to country of origin

(b) (i) State **one** positive impact of migration on host (destination) countries.

(1)

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(ii) Study Figure 8a in the Resource Booklet.

Identify the **two** provinces with the highest internal migration between provinces.

(2)

1 ....

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(iii) Suggest **two** reasons for the pattern shown in Figure 8a.

(4)

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(c) Explain **two** ways geopolitical relationships between countries can affect trade.

(4)

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P 7 5 9 6 3 A 0 3 6 4 8

(d) (i) Study Figure 8b in the Resource Booklet.

Calculate the mean carbon emissions from international tourism in 2016.

You **must** show all your workings in the spaces below.

(2)

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(ii) Describe a trend shown in Figure 8b.

(2)

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(e) Study Figure 8c in the Resource Booklet.

Assess the factors that have led to increased tourism.

You **must** refer to the resource in your answer.

(6)

(f) Discuss the view:

"The positive impacts of tourism outweigh the impacts on the environment."

Use Figures 8b and 8c from the Resource Booklet, and your own knowledge and understanding to support your answer.

You **must** refer to the resources in your answer.

(12)

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(Total for Question 8 = 35 marks)

9   Development and human welfare

(a) (i)   Identify **one** social indicator of development.

(1)

☒   **A**   carbon emissions per capita

☒   **B**   gross domestic product

☒   **C**   gross national product

☒   **D**   literacy rate

(ii)   Identify **one** top-down way of supporting development.

(1)

☒   **A**   building a well in a village

☒   **B**   community loans from a charity

☒   **C**   debt relief

☒   **D**   small scale training provision

(iii)   State **one** disadvantage of top-down development projects.

(1)

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(b) (i)   Study Figure 9a in the Resource Booklet.

Identify **two** labelled regions with the lowest sub-national Human Development Index (HDI).

(2)

1 ....

2 ....

P 7 5 9 6 3 A 0 4 1 4 8

(ii) Suggest **two** reasons for the pattern shown in Figure 9a.

(4)

1 ....

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(c) Explain **two** ways intergovernmental agreements can help reduce uneven development.

(4)

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(d) (i) Study Figure 9b in the Resource Booklet.

Calculate the mean infant mortality rate.

You **must** show all your workings in the space below.

(2)

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(ii) Describe a pattern shown in Figure 9b.

(2)

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(e) Study Figure 9c in the Resource Booklet.

Assess factors that have contributed to the development gap.

You **must** refer to the resource in your answer.

(6)

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(f) Discuss the view:

"Food and water security are essential for ensuring greater human welfare."

Use Figures 9b and 9c from the Resource Booklet, and your own knowledge and understanding to support your answer.

You **must** refer to the resources in your answer.

(12)

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(Total for Question 9 = 35 marks)

TOTAL FOR SECTION C = 35 MARKS
TOTAL FOR PAPER = 105 MARKS

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Pearson Edexcel International GCSE (9–1)

Friday 22 November 2024

Morning (Time: 1 hour 45 minutes)

Paper reference **4GE1/02**

Geography
PAPER 2: Human geography

Resource Booklet
Do not return this Booklet with the question paper.

Turn over

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V:1/1/1/1/1/1

P 7 5 9 6 3 A

Pearson

Figure 1a

Factories in a residential area
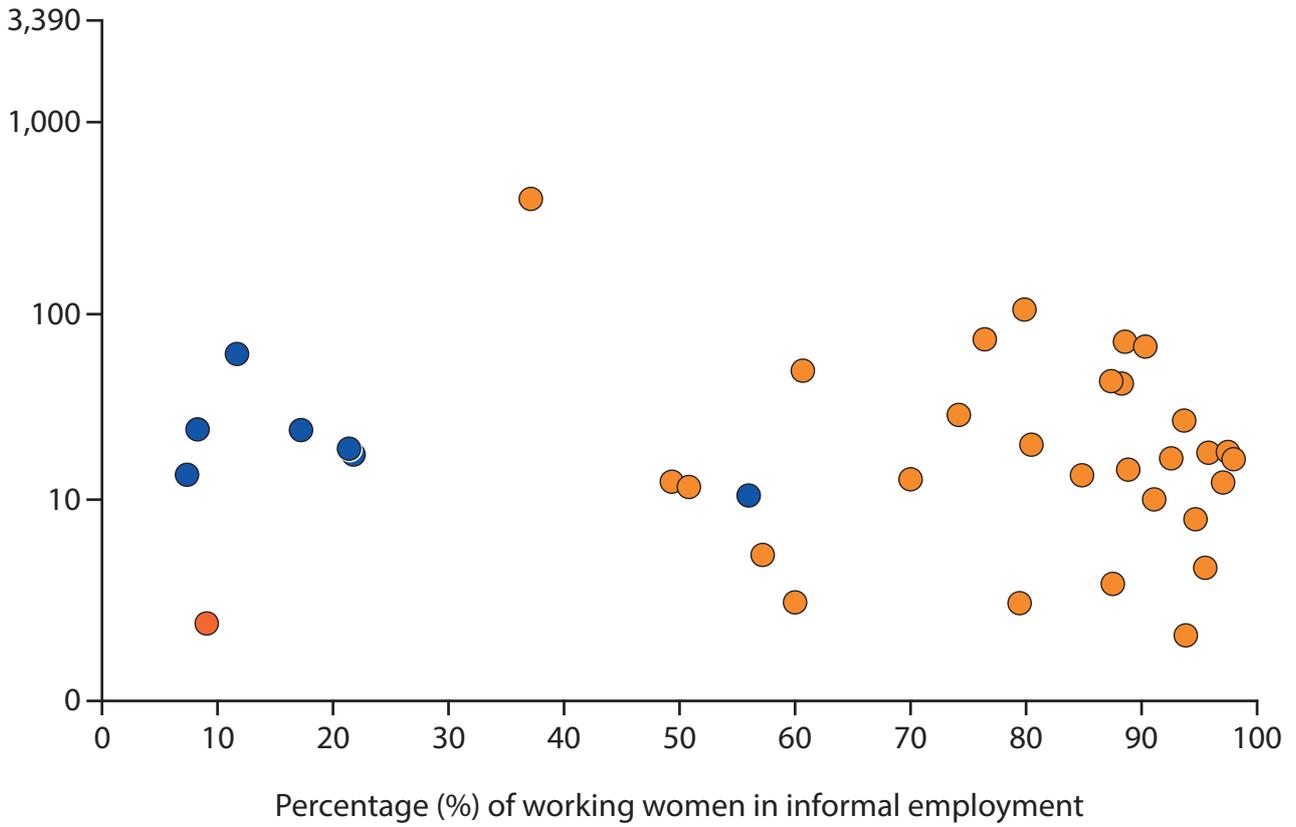
Figure 1b

Working women in informal employment and GDP for countries in selected regions, 2022
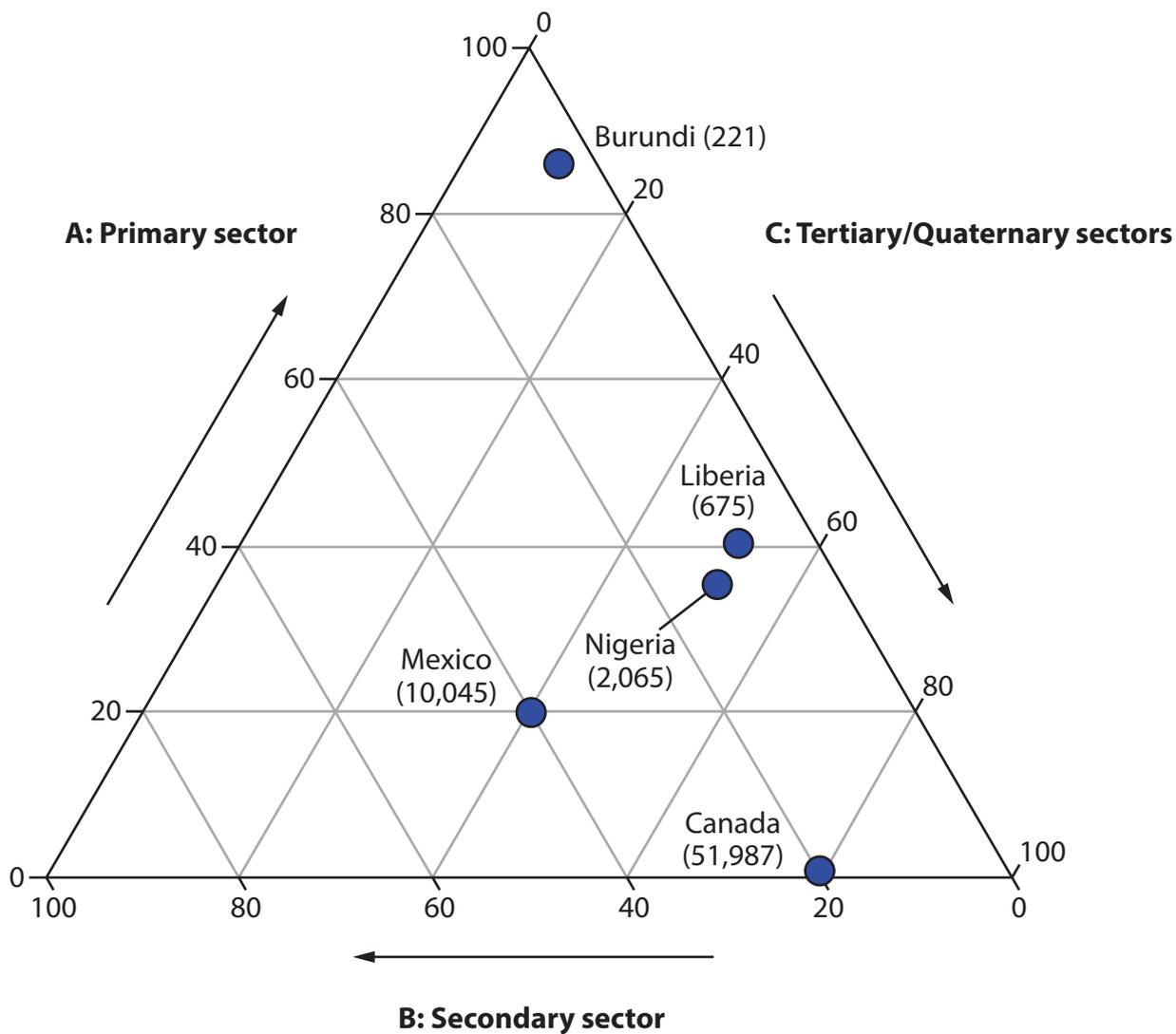
Figure 1c

Employment structure and gross domestic product (GDP) in selected countries, 2022

Note: Gross domestic product (GDP) per capita for each country shown in US$

Figure 2a

Rural environment in the Midwest of the USA
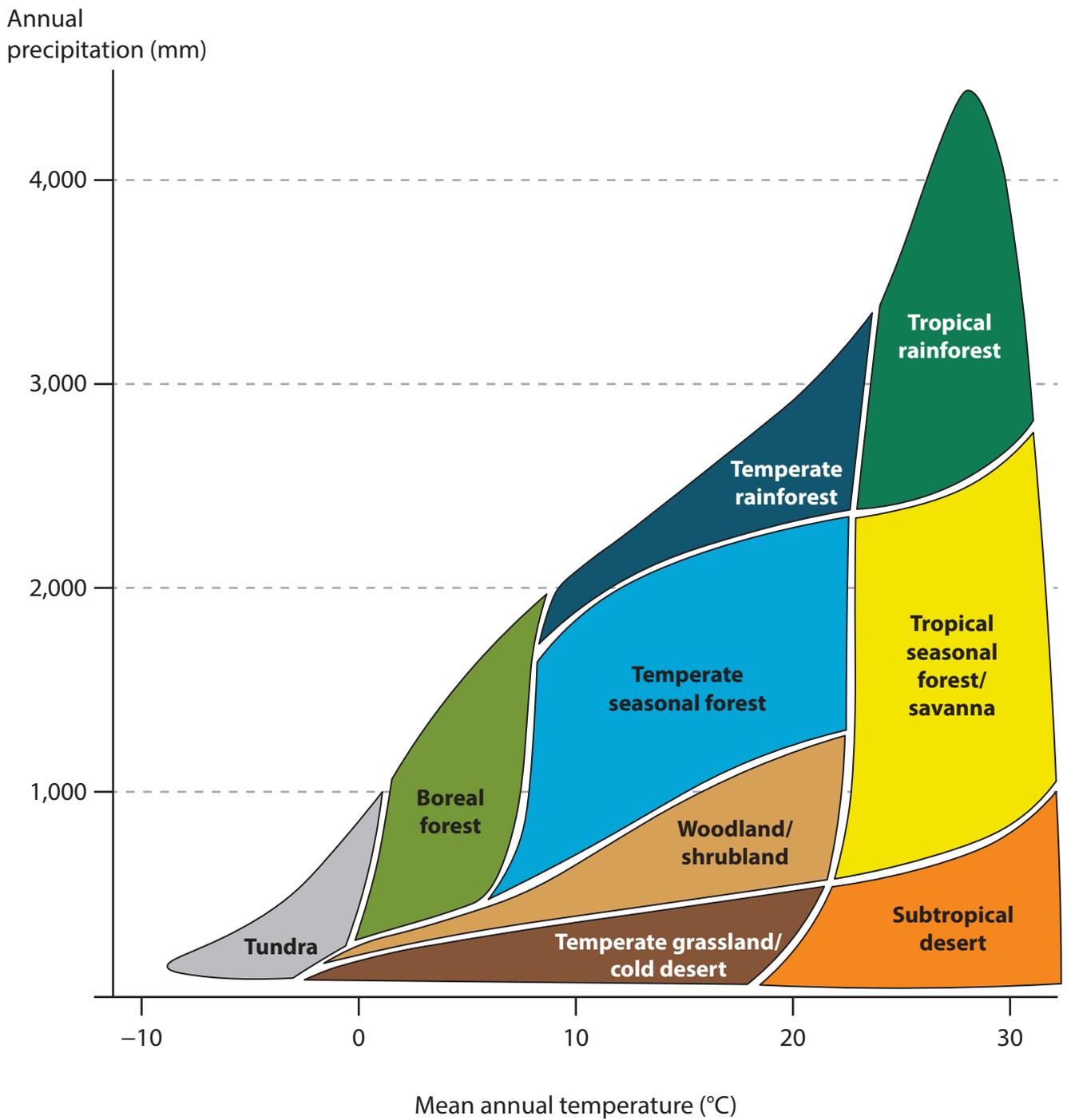
Figure 2b

Annual precipitation and mean annual temperature of key biomes
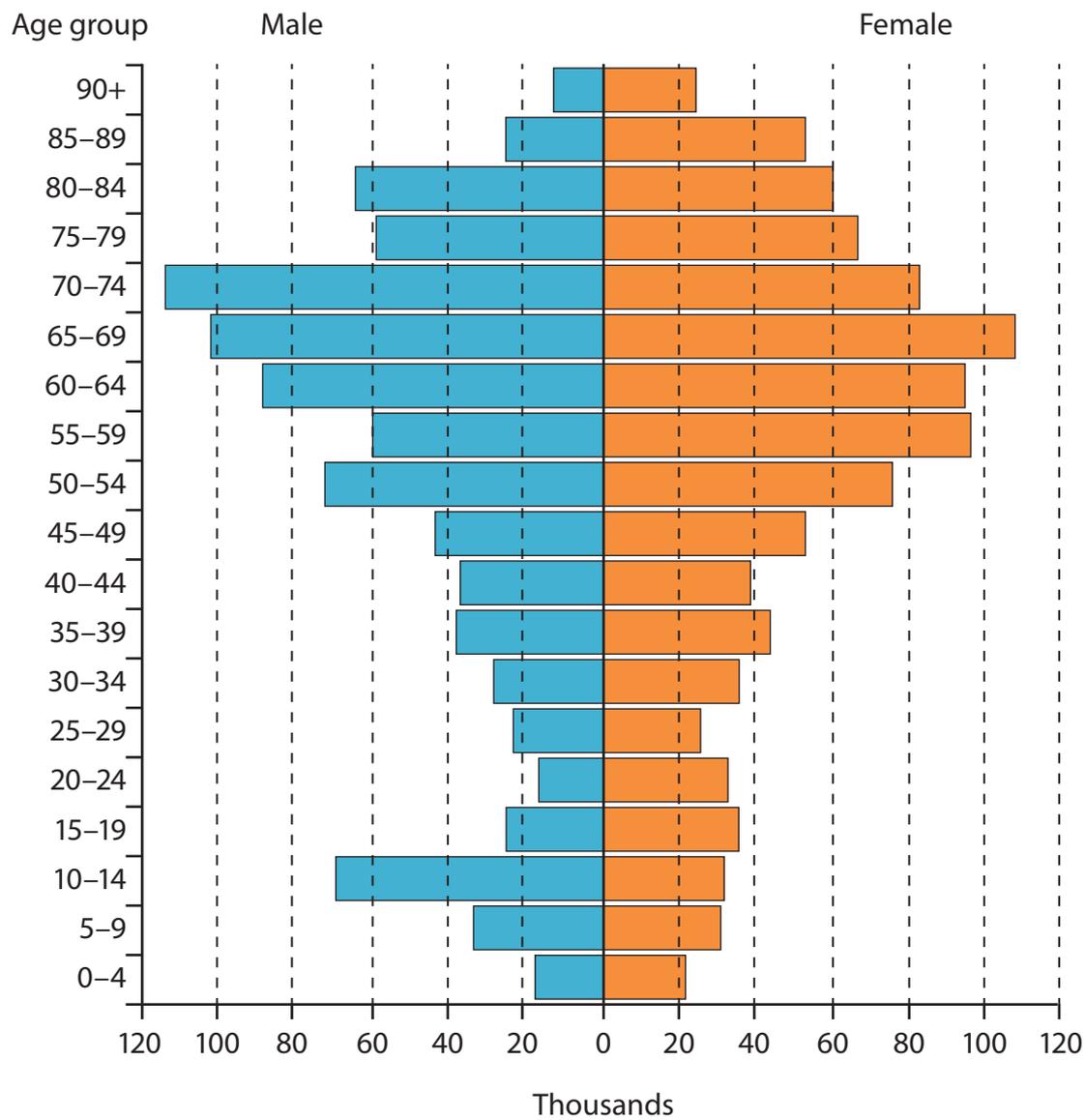
Figure 2c

Population structure for a rural area in the United Kingdom, 2023

Figure 3a

A street in Mumbai, India
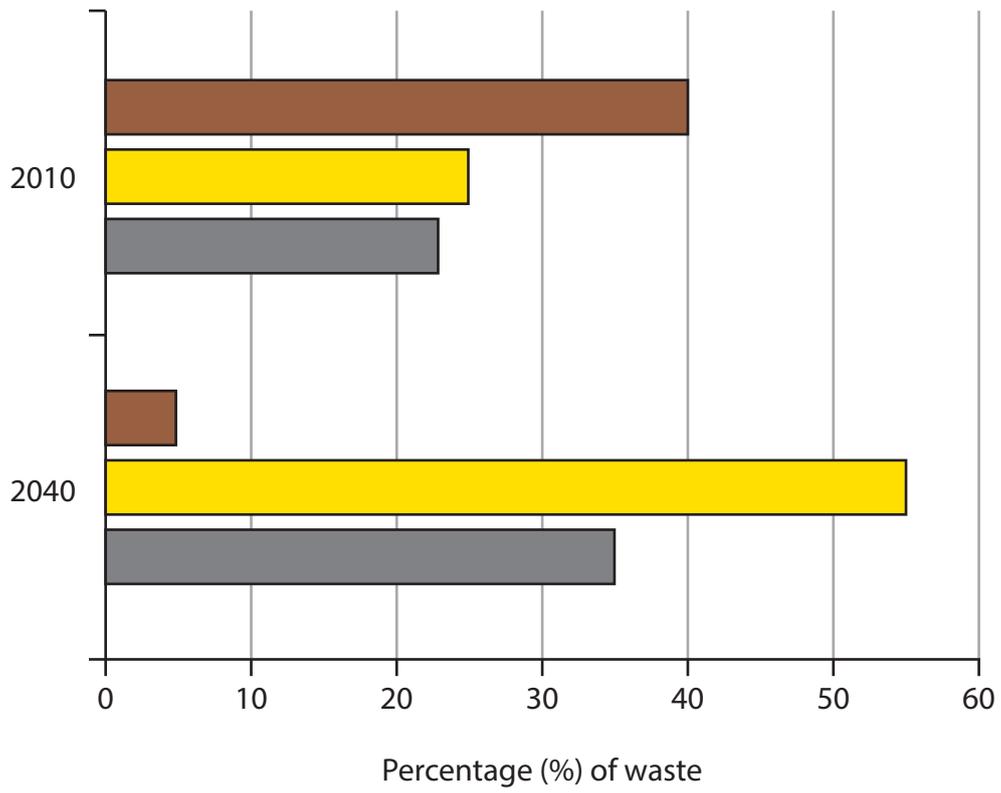
Figure 3b

Predicted changes for waste management for a city in the USA
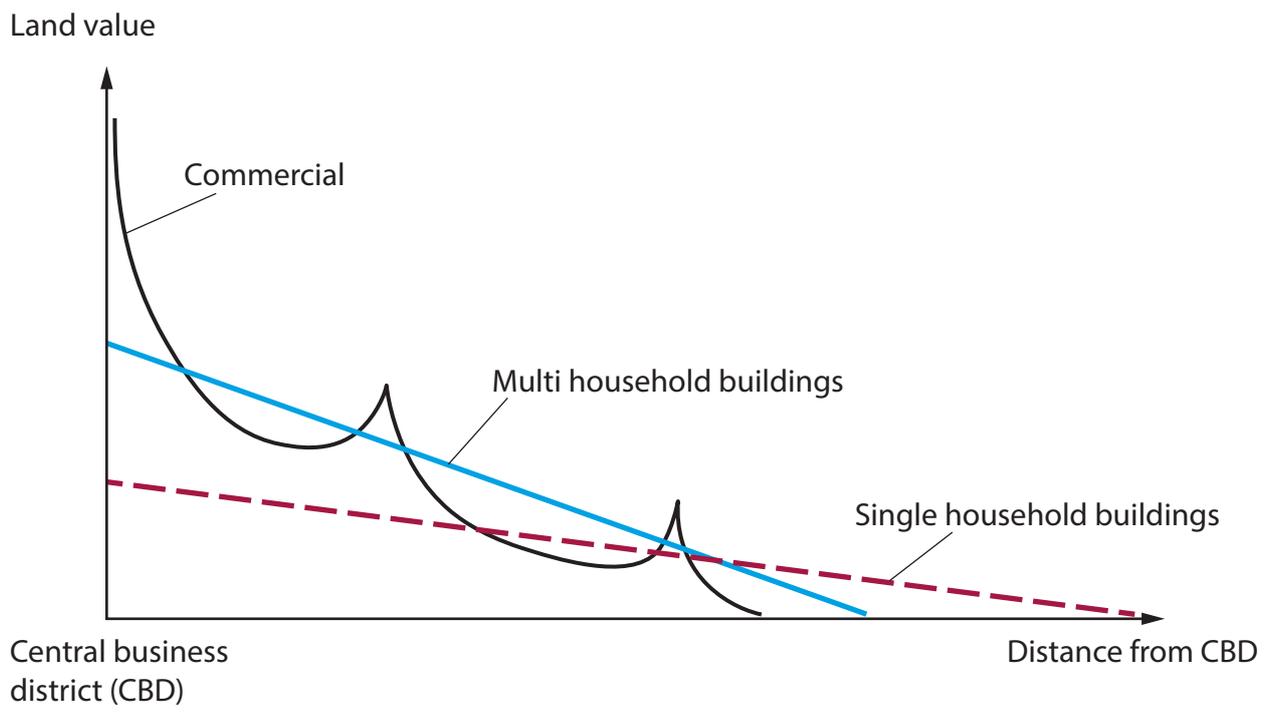
Figure 3c

Land use and land value change in a city

- Evidence recorded of renewable energy use along a transect.

- Photographs.

- Questionnaire for local residents.

- Secondary data on local schemes for supporting renewable energy for homes.

Figure 4a

Data collection methods
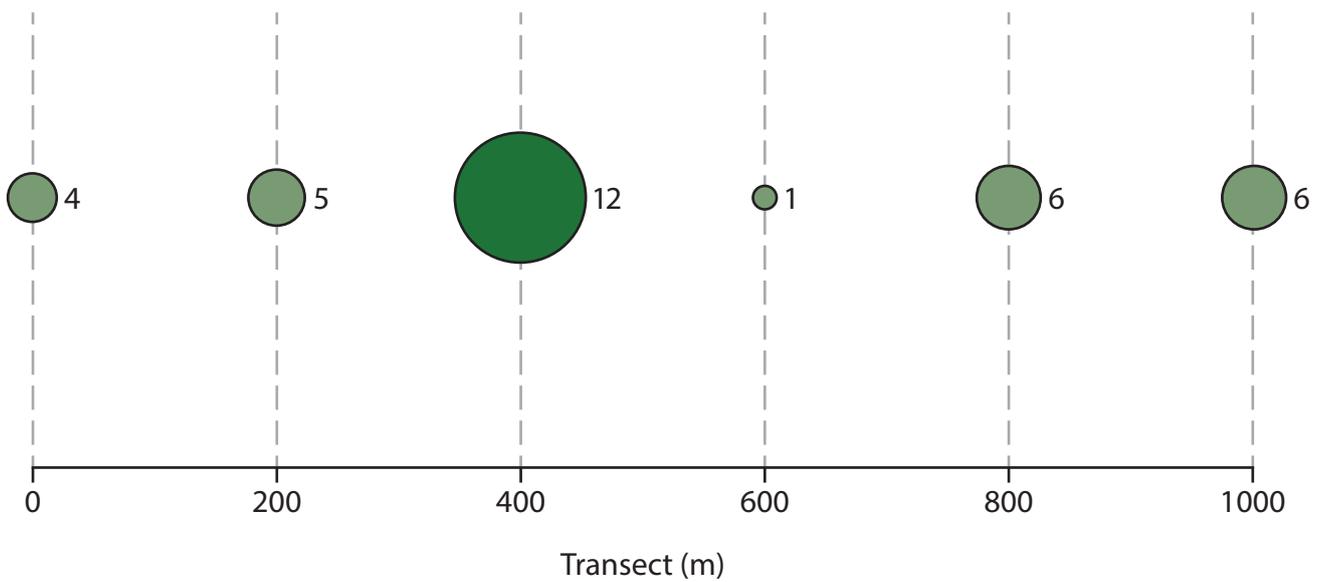
Transect (m)

Figure 4b

Evidence of buildings with solar panels along a transect

1	Solar panels are a popular source of renewable energy for residents in the village.
2	Renewable energy is accessible to everyone in the village.
3	Renewable energy sources have a positive impact on the lives of residents in the village.
4	There are a range of options to support sustainable energy use in the village.

Figure 4c

Conclusions

- Evidence recorded of the impact of tourism along a transect.

- Photographs.

- Questionnaire for local residents.

- Secondary data on tourism in the national park.

Figure 5a

Data collection methods
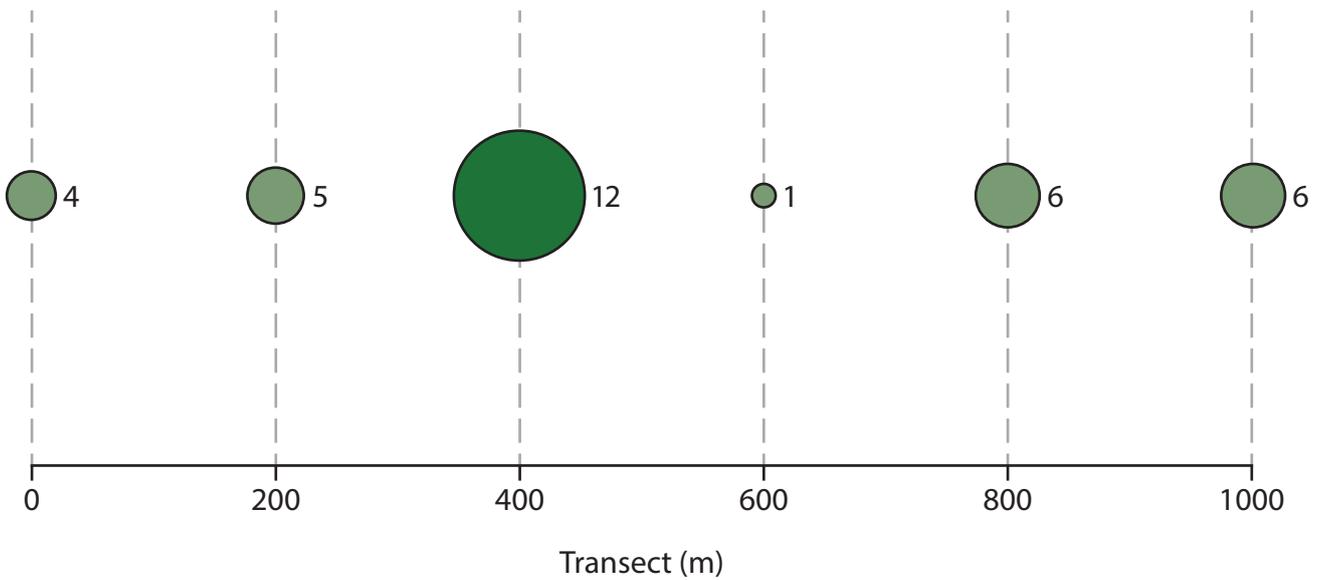
Transect (m)

Figure 5b

Evidence of tourism along a transect

1	Tourism is an important part of the local economy.
2	Tourism affects the entire village.
3	Tourism has a positive impact on the lives of residents in the village.
4	There are a range of other activities that take place in the village.

Figure 5c

Conclusions

- Evidence recorded of new retail developments along a transect.

- Photographs.

- Questionnaire for local residents.

- Secondary data on local development plans from the local authority.

Figure 6a

Data collection methods
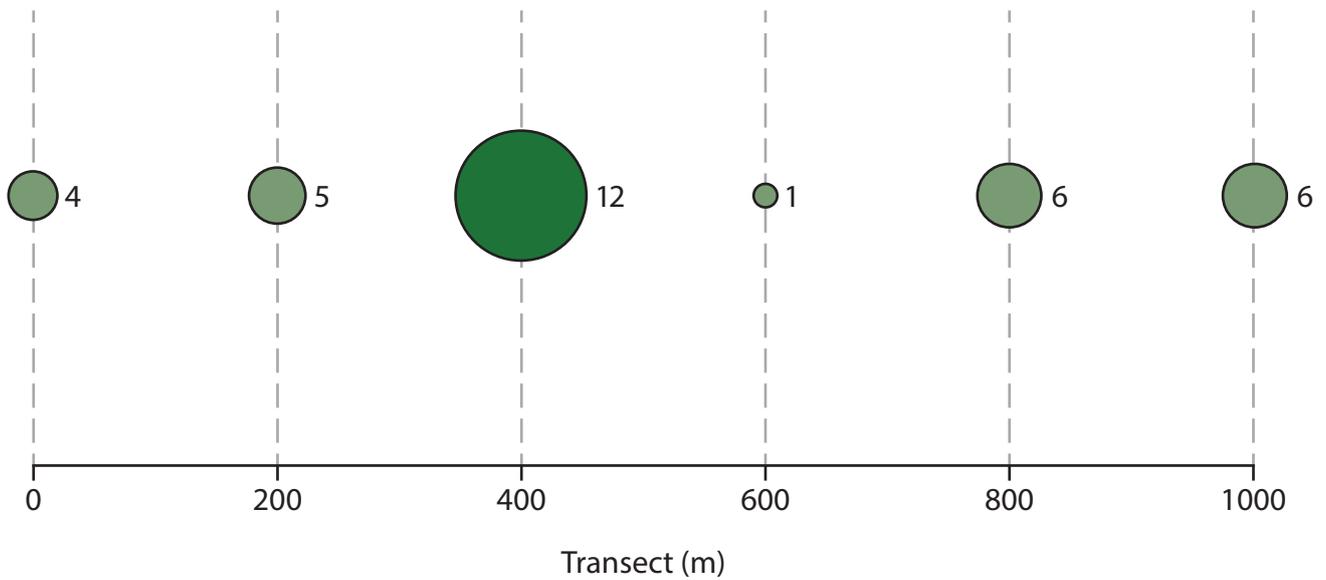
Transect (m)

Figure 6b

Evidence of new developments along a transect

1	Development of new shops is happening across the city centre.
2	High street shops provide options for all residents in the area.
3	New shops and services have a positive impact on the lives of residents in the city.
4	There are a range of land uses present as well as the new retail developments.

Figure 6c

Conclusions

Figure 7a

Distribution of desertification risk in Southern Europe

Key
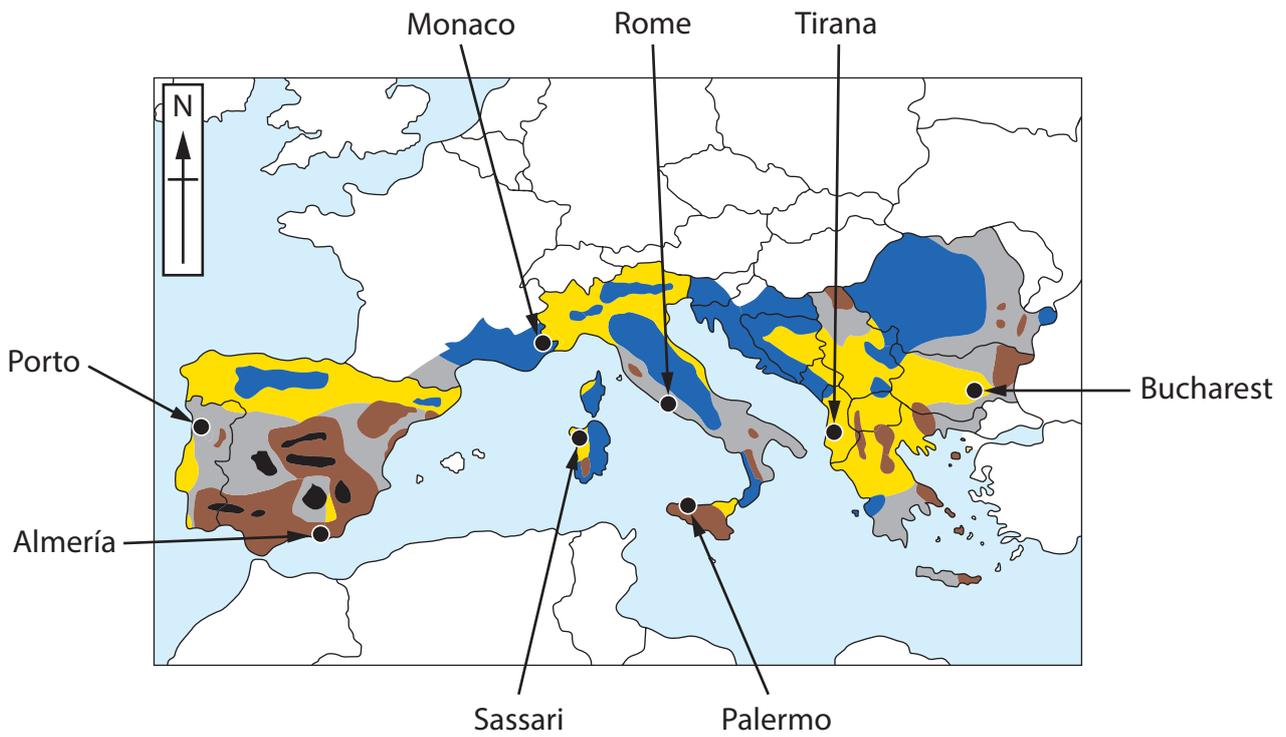
■ (blue)	1.2 and below	Non affected areas or very low risk of desertification
■ (grey)	1.21–1.3	Low risk of desertification
■ (yellow)	1.31–1.4	Medium risk of desertification
■ (brown)	1.41–1.6	High risk of desertification
■ (black)	1.61 and above	Very high risk of desertification

Country	Deforestation rate in million hectares per year (Mha) 2015–2020	Reforestation rate in thousand hectares per year (Kha) 2015–2020
Brazil	66.1	945
Canada	48.9	427
United States of America	46.5	691
Indonesia	29.4	867

Figure 7b

Deforestation and reforestation rates for selected countries
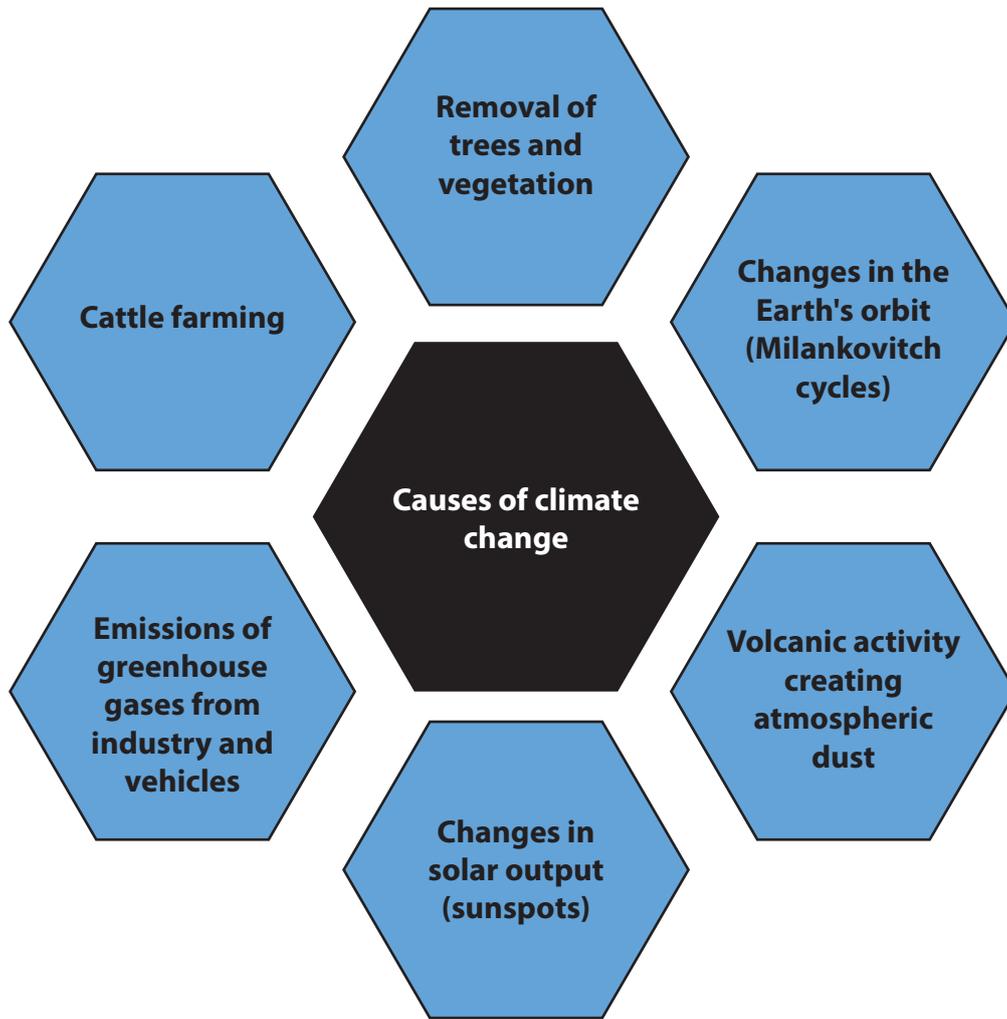
Figure 7c

Selected causes of climate change
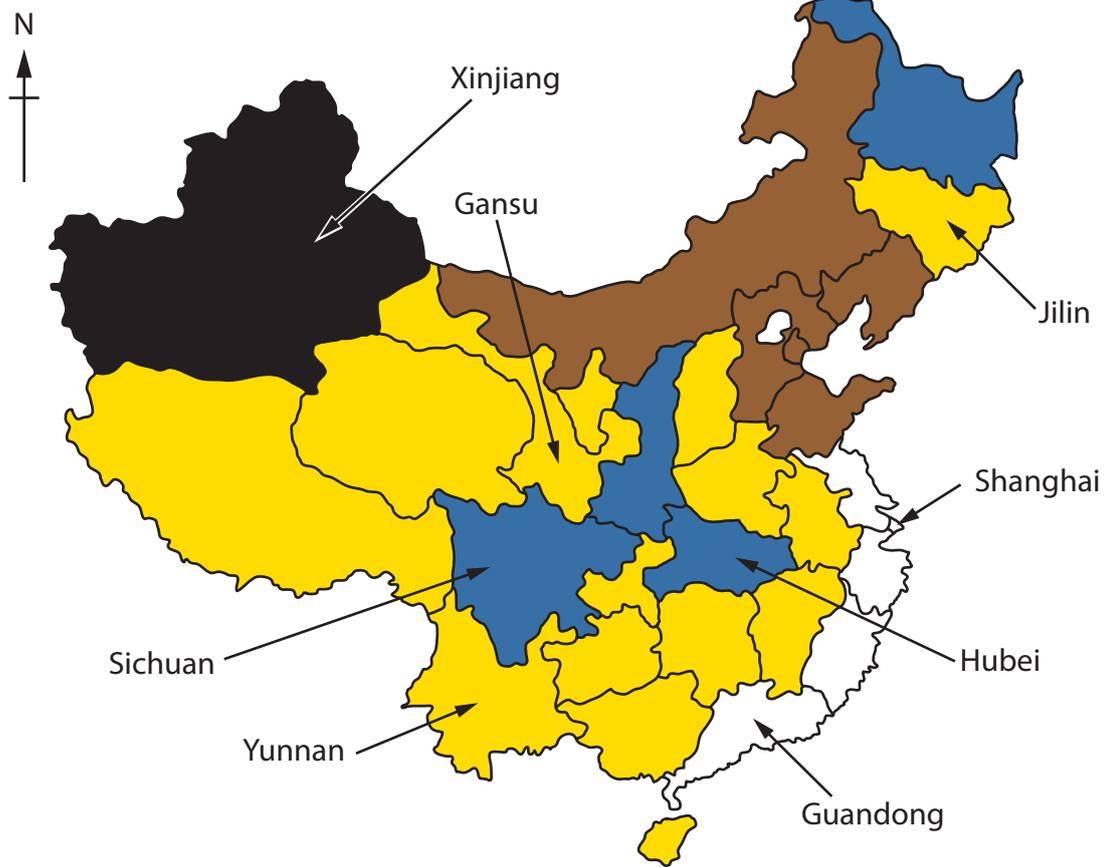
Key: Total internal migration between provinces (millions)

🟨	Below 1.5
🟦	1.5–2.0
🟫	2.1–3.0
⬛	3.1–4.0
⬜	Above 4.0
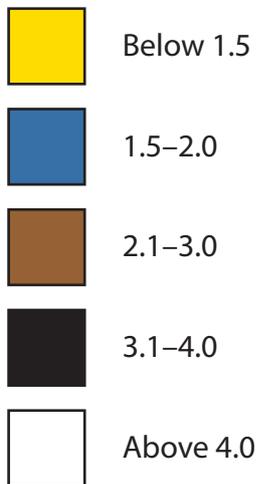
Figure 8a

Internal migration patterns in China, 2017

	International (million tonnes of CO$_2$)		Domestic (million tonnes of CO$_2$)	
	2016	**2030**	**2016**	**2030**
Air	397	616	282	376
Rail	4	3	16	39
Bus	1	1	55	60
Car	56	45	559	627

Figure 8b

Carbon emissions from domestic and international tourism in 2016 and projections for 2030
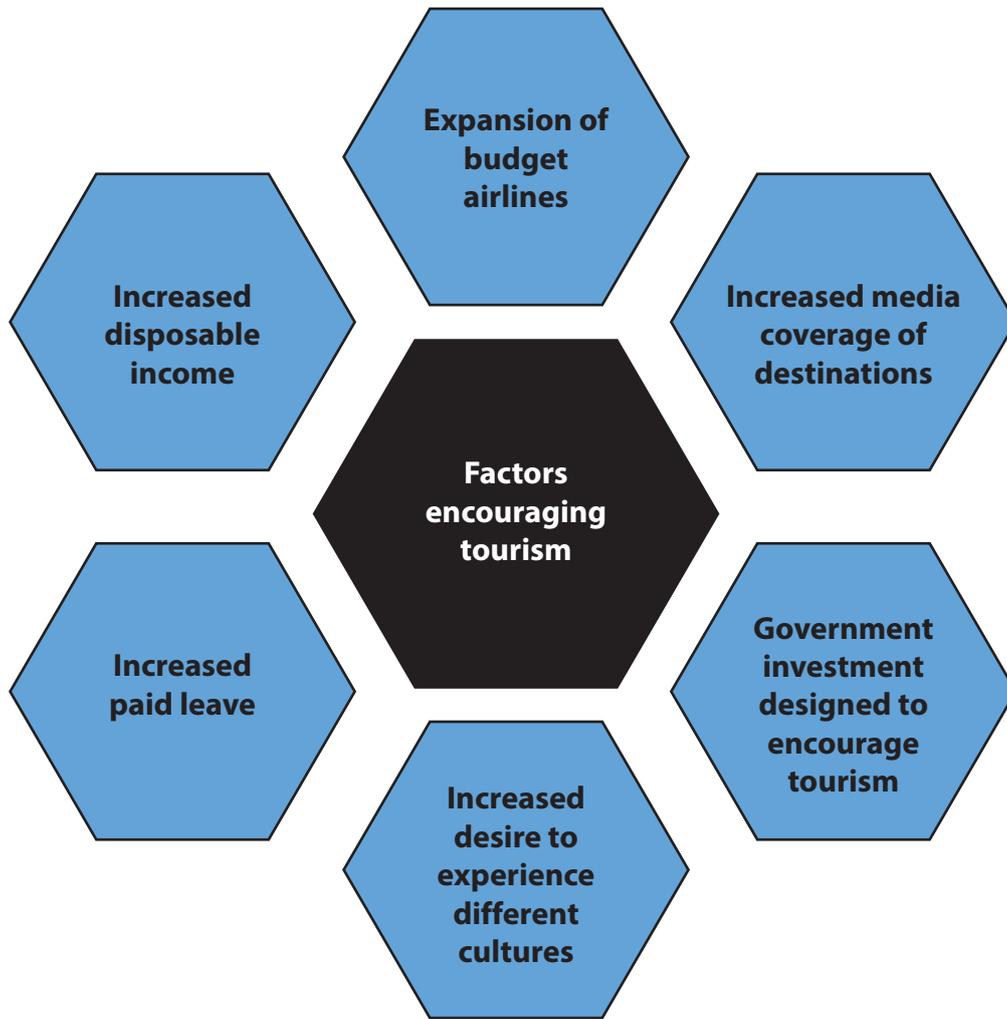
Figure 8c

Selected factors that have encouraged increased tourism

Lunda Norte, Angola

Coast, Kenya

Cabo Delgado, Mozambique

Cuanza Sul, Angola

Kunene, Namibia

Karas, Namibia

KwaZulu-Natal, South Africa

Western Cape, South Africa

N

Key: Sub-national Human Development Index score

	0.34–0.41
	0.42–0.49
	0.50–0.58
	0.59–0.65
	0.66–0.73
	0.74–0.82
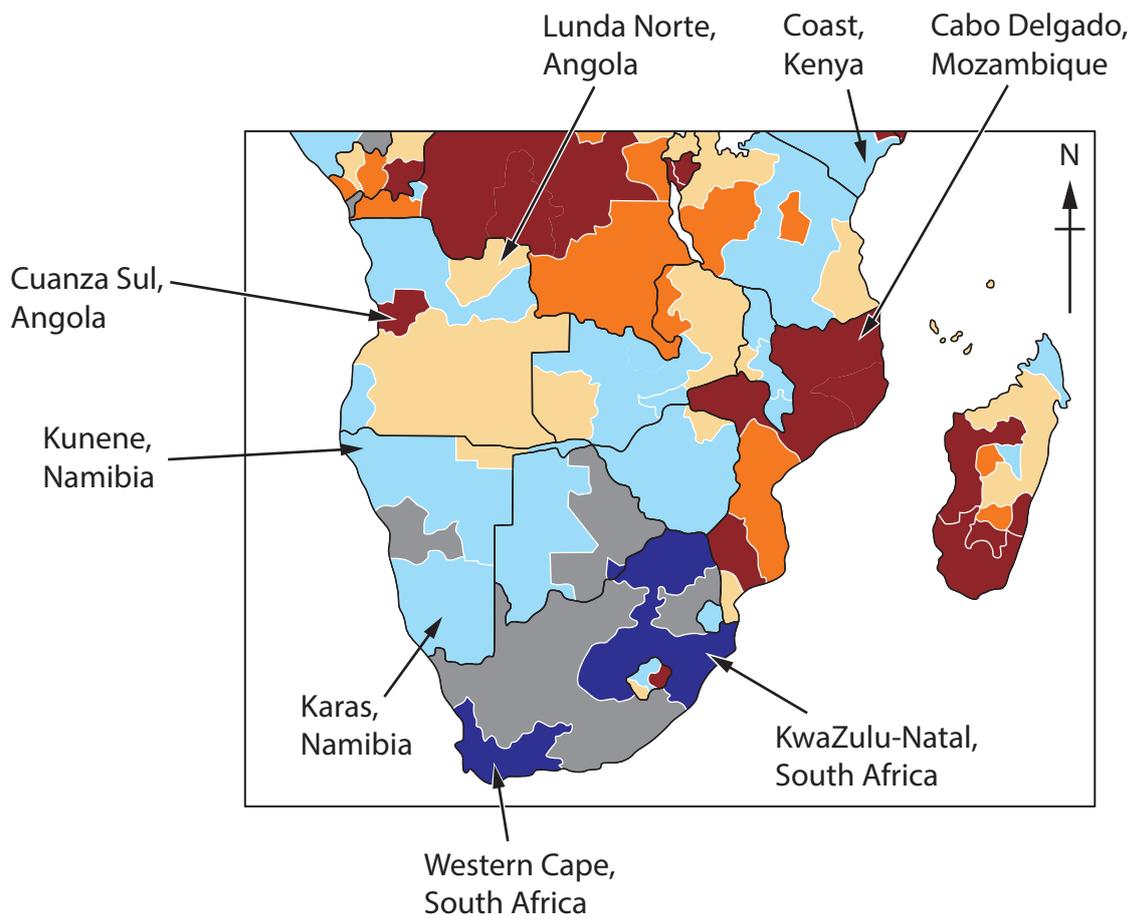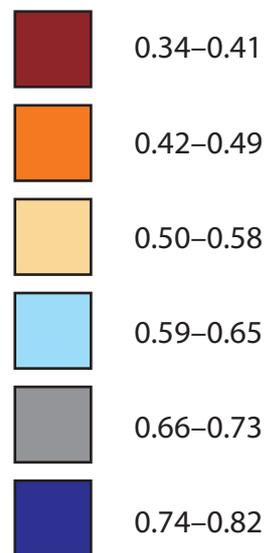
Figure 9a

Sub-national Human Development Index scores, 2022

Note: The sub-national Human Development Index (HDI) scores are Human Development Index scores for regions within countries from 0 (lowest) to 1 (highest).

Country	Infant mortality rate (deaths per 1,000 live births)	Maternal mortality rate (maternal deaths per 100,000 live births)
India	25.0	103
Mexico	12.7	59
France	3.7	8
Japan	1.7	4

Figure 9b

Infant and maternal mortality rates in selected countries, 2022
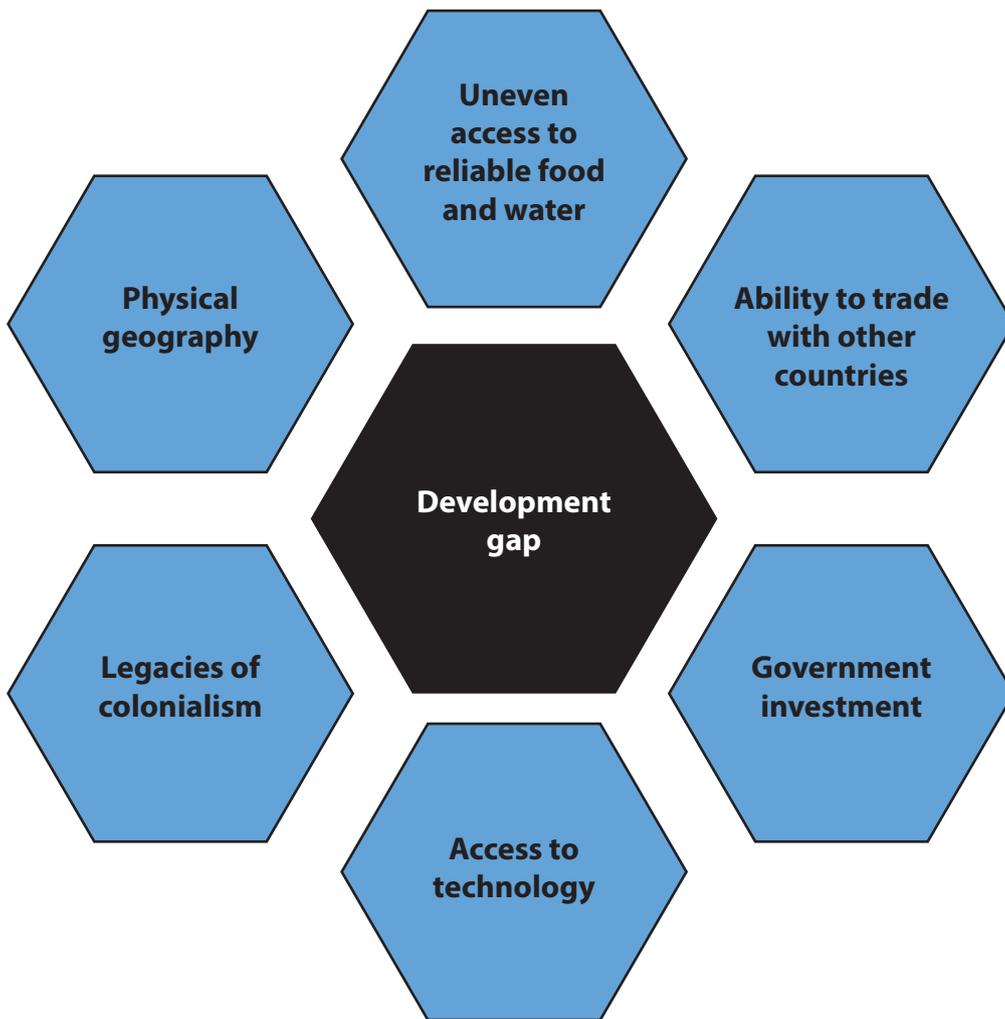
Figure 9c

Selected factors that contribute to the development gap

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