Pearson Edexcel International GCSE (9–1)

Time 1 hour 45 minutes

Paper reference **4GE1/02R**

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 **one** question 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 72.
- 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 ▶

Pearson

SECTION A

Answer ONE question 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** disadvantage of using natural gas as a source of energy.

(1)

⊠   **A**   There is an infinite supply.

⊠   **B**   It is easy to export.

⊠   **C**   It is a renewable energy source.

⊠   **D**   Burning it releases CO_2.

(ii) Define the term **non-renewable energy**.

(1)

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(b) Identify **one** way to make a factory more sustainable.

(1)

⊠   **A**   Increase the factory size.

⊠   **B**   Increase the number of vehicles used to transport goods.

⊠   **C**   Use more packaging for goods produced.

⊠   **D**   Use more renewable energy.

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

Suggest **one** reason why this might be considered primary sector employment.

(2)

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(ii) Name **one** raw material produced in the primary sector.

(1)

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(d) Explain **two** factors that affect global energy production.

(4)

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

Explain the relationship shown between population growth and food supply.

(3)

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(f) Explain **two** factors that affect the location of secondary sector industries.

(4)

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

Analyse the reasons for the differences in the percentage of people employed in the tertiary sector.

(8)

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(Total for Question 1 = 25 marks)

If you answer Question 2 put a cross in the box ☒ .

2   Rural environments

(a) (i)   Identify **one** characteristic of the savanna biome.

(1)

☒   **A**   daily rainfall

☒   **B**   grassland

☒   **C**   dense forest

☒   **D**   permafrost

(ii) Define the term **natural ecosystem**.

(1)

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....

(b) Identify the meaning of the term **genetically-modified (GM) crops**.

(1)

☒   **A**   Plants with root systems that have been changed to increase size.

☒   **B**   Plants with DNA that have been changed to increase yield.

☒   **C**   Animals with DNA that have been changed to increase size.

☒   **D**   Livestock that have greater resistance to disease.

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

Suggest how this natural ecosystem might provide services.

(2)

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(d) State **one** type of land use found in a rural environment.

(1)

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(e) Explain how NGOs have managed **two** challenges in rural environments in developing or emerging countries.

(4)

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

Suggest **one** reason for the trends shown.

(3)

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(g) Explain **one** strategy used to improve health and **one** strategy used to improve housing in rural areas in developing or emerging countries.

(4)

Health

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Housing

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

Analyse the factors that have caused rural change in developed countries.

(8)

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(Total for Question 2 = 25 marks)

3 Urban environments

(a) (i) Identify **one** advantage of building on a greenfield site.

(1)

☒ **A** It is more expensive to build on.

☒ **B** It is cheaper to build on.

☒ **C** Infrastructure will need to be installed.

☒ **D** Wildlife and habitats are lost.

(ii) State **one** factor affecting the rate of urbanisation.

(1)

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(b) Identify the minimum population of a megacity.

(1)

☒ **A** 1 million people

☒ **B** 5 million people

☒ **C** 10 million people

☒ **D** 20 million people

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

Suggest **one** piece of evidence that shows this urban area may have experienced rapid urbanisation.

(2)

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(d) Define the term **informal employment**.

(1)

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(e) Explain **two** factors that have contributed to counter-urbanisation.

(4)

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

Suggest **one** reason for the trend shown.

(3)

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(g) Explain **two** strategies designed to improve quality of life in urban areas in a developed country.

(4)

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

Analyse the social challenges facing urban areas in developing or emerging countries.

(8)

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(Total for Question 3 = 25 marks)

TOTAL FOR SECTION A = 25 MARKS

SECTION B

Geographical enquiry

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 4 put a cross in the box ☒ .

4   **Investigating economic activity and energy**

Study Figures 4a and 4b in the Resource Booklet. These show extracts from a student's data analysis, conclusions and evaluations about the changing use of energy.

> The aim of the student's investigation was to investigate local attitudes towards the development of a new solar energy farm.
>
> The student carried out a questionnaire, environmental quality survey and took photographs, which the student annotated, and collected newspaper articles including photos of the area.

(a) Identify **one** source of secondary data used by the student.

(1)

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(b) Identify **one** advantage of using a questionnaire as a data collection method.

(1)

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(c) Suggest **one** way the reliability of the data could have been affected.

(2)

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(d) Study Figures 4a and 4b in the Resource Booklet.

Evaluate the student's data analysis and conclusions.

(8)

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(Total for Question 4 = 12 marks)

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

5   Investigating rural environments

Study Figures 5a and 5b in the Resource Booklet. These show extracts from a student's data analysis, conclusions and evaluations about the changing use of rural environments.

> The aim of the student's investigation was to investigate local attitudes towards the development of a new visitor centre in The Cévennes National Park, France.
>
> The student carried out a questionnaire, environmental quality survey and took photographs, which the student annotated, and collected newspaper articles including photos of the area.

(a) Identify **one** source of secondary data used by the student.

(1)

....

(b) Identify **one** advantage of using a questionnaire as a data collection method.

(1)

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(c) Suggest **one** way the reliability of the data could have been affected.

(2)

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(d) Study Figures 5a and 5b in the Resource Booklet.

Evaluate the student's data analysis and conclusions.

(8)

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(Total for Question 5 = 12 marks)

6   **Investigating urban environments**

Study Figures 6a and 6b in the Resource Booklet. These show extracts from a student's data analysis, conclusions and evaluations about the changing use of urban environments.

> The aim of the student's investigation was to investigate local attitudes towards the development of a new retail building in Chicago, USA.
>
> The student carried out a questionnaire, environmental quality survey and took photographs, which they annotated, and collected newspaper articles including photos of the area.

(a) Identify **one** source of secondary data used by the student.

(1)

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(b) Identify **one** advantage of using a questionnaire as a data collection method.

(1)

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(c)   Suggest **one** way the reliability of the data could have been affected.

(2)

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(d) Study Figures 6a and 6b in the Resource Booklet.

Evaluate the student's data analysis and conclusions.

(8)

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(Total for Question 6 = 12 marks)

TOTAL FOR SECTION B = 12 MARKS

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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) Identify the correct word to complete the sentence below.

Climate change is the long-term changes in …… conditions.

(1)

☒ **A** atmospheric

☒ **B** aerobic

☒ **C** evaporation

☒ **D** forest

(b) Identify **one** environmental impact of deforestation.

(1)

☒ **A** increased exports of timber

☒ **B** loss of species diversity

☒ **C** local communities forced to move

☒ **D** extra space for cattle ranching

(c) State **one** cause of the enhanced greenhouse effect.

(1)

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....

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

Identify the countries labelled in Figure 7a with the highest net percentage decrease and lowest net percentage decrease in forest cover.

(2)

Highest net percentage (%) decrease

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Lowest net percentage (%) decrease

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(ii) Suggest **two** reasons for this pattern of change.

(4)

1 ....

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(e) Explain **two** strategies to manage water shortages in fragile environments.

(4)

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(f) Study Figure 7b in the Resource Booklet.

(i) Calculate the mean amount of money spent on responding to climate change.

You must show all your workings in the space below.

Give your answer to one decimal place.

(2)

$ ....

(ii) Describe the trends shown in Figure 7b.

(2)

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

Assess the potential impacts of desertification.

(6)

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(h) Discuss the view

'The environmental impacts of climate change will be greater in the future than the economic impacts.'

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

(12)

(Total for Question 7 = 35 marks)

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If you answer Question 8 put a cross in the box ☒ .

8 Globalisation and migration

(a) (i) Identify the correct word to complete the sentence below.

The World Bank provides low cost loans in developing countries to try and

reduce ……. .

(1)

☒	**A**	life expectancy
☒	**B**	income
☒	**C**	poverty
☒	**D**	exports

(ii) Identify **one** disadvantage of transnational corporations (TNCs) for host countries.

(1)

☒	**A**	attract other businesses
☒	**B**	provide job opportunities for residents
☒	**C**	potential for exploitation of local workers
☒	**D**	improved transport links

(b) (i) Define the term **voluntary migration**.

(1)

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....

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

Identify the countries labelled in Figure 8a with the highest and lowest number of international migrants.

(2)

Highest

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Lowest

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

(4)

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

(4)

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

(i) Calculate the percentage change for the number of international tourist arrivals between 1990 and 2018.

You must show all your workings in the space below.

Give your answer to one decimal place.

(2)

.... %

(ii) Describe the trend in the number of tourists shown in Figure 8b.

(2)

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

Assess the impacts of the growth of global tourism.

(6)

(f) Discuss the view

'Sustainable tourism is impossible to achieve because of the large numbers of tourists.'

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

(12)

(Total for Question 8 = 35 marks)

If you answer Question 9 put a cross in the box ☒ .

9 Development and human welfare

(a) (i) Identify the correct word to complete the sentence below.

The Human Development Index is created using GNP per capita, years of education and ……. .

(1)

☒ **A** life expectancy

☒ **B** mortality rate

☒ **C** fertility rate

☒ **D** number of doctors per 1,000 people

(ii) Identify **one** type of demographic data.

(1)

☒ **A** Gross National Product (GNP)

☒ **B** Ecological footprint

☒ **C** Corruption Index

☒ **D** Infant mortality rate

(b) Identify **one** international organisation that tries to reduce the development gap.

(1)

....

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

Identify the countries labelled in Figure 9a with the highest and lowest levels of extreme poverty.

(2)

Highest

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Lowest

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

(4)

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(d) Explain **one** advantage and **one** disadvantage of top-down development projects.

(4)

Advantage

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Disadvantage

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

(i) Calculate the percentage decrease in the mortality rate in Bolivia from 1990 to 2018.

You must show all your workings in the space below.

Give your answer to one decimal place.

(2)

.... %

(ii) Suggest what this trend might mean for the country's development.

(2)

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

Assess the factors that affect uneven development within countries.

(6)

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(g) Discuss the view

> 'The most effective way to address inequality within countries is to reduce poverty.'

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

(12)

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(Total for Question 9 = 35 marks)

TOTAL FOR SECTION C = 35 MARKS
TOTAL FOR PAPER = 72 MARKS

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Pearson Edexcel International GCSE (9–1)

Time 1 hour 45 minutes

Geography
PAPER 2: Human geography

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

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Figure 1a

Primary sector employment in Vietnam
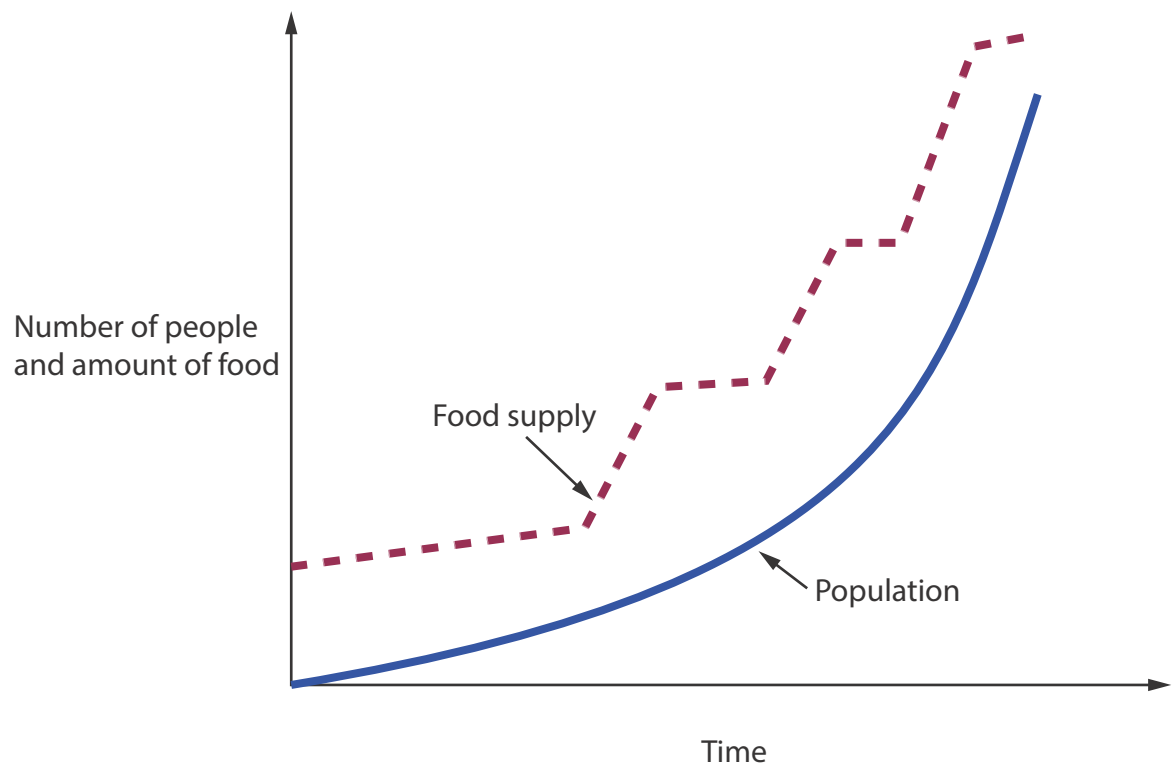
Figure 1b

Boserup's approach to population growth and food supply
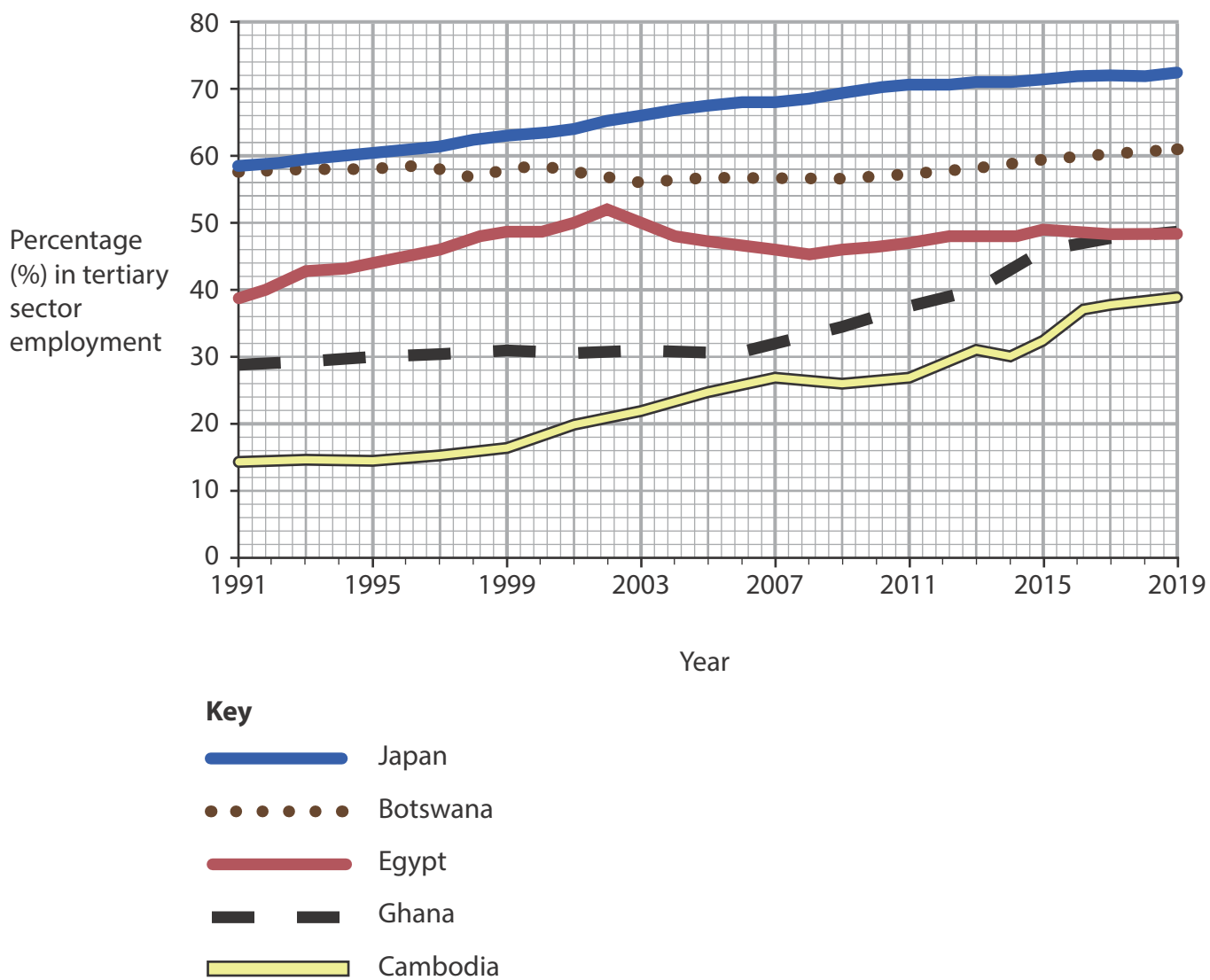
Figure 1c

Percentage (%) in tertiary sector employment in selected countries, 1991–2019

Figure 2a

A rainforest trail in Peru
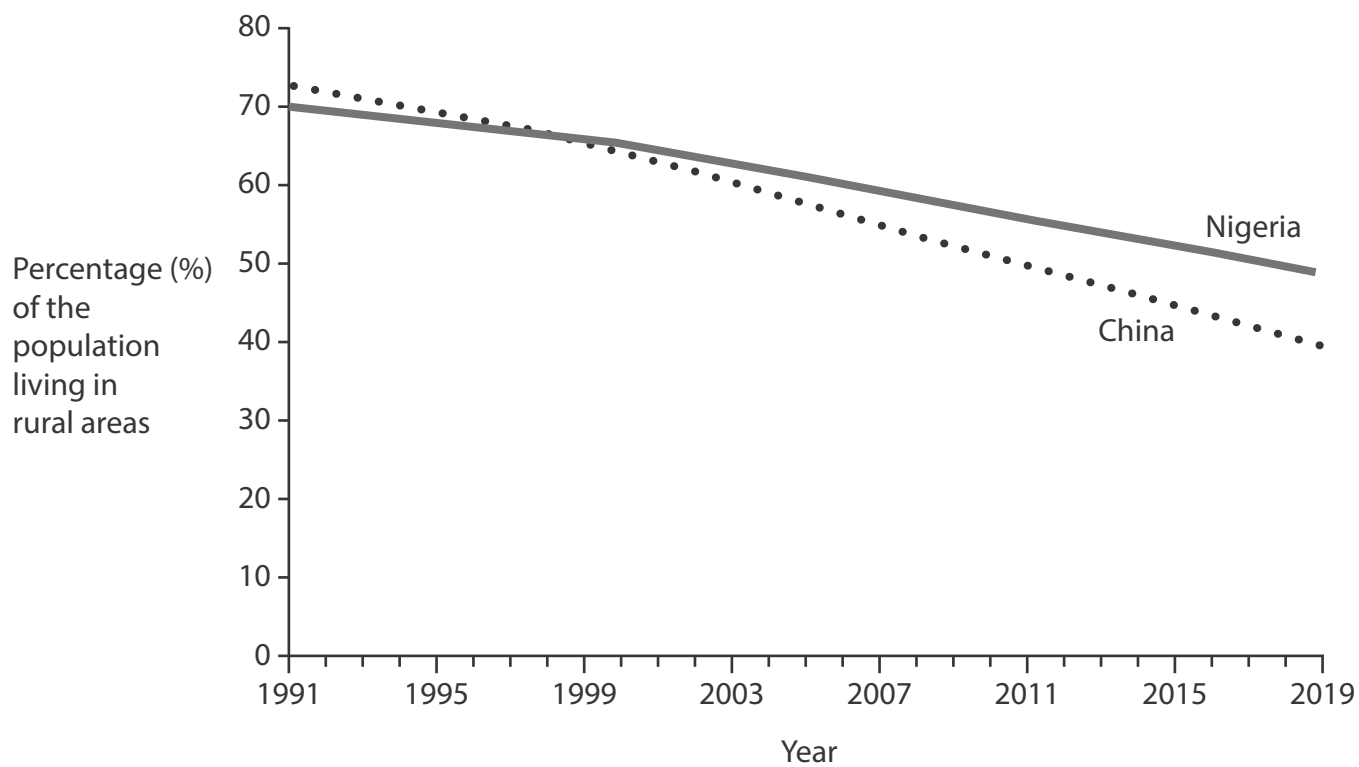
Figure 2b

Percentage (%) of the population living in rural areas
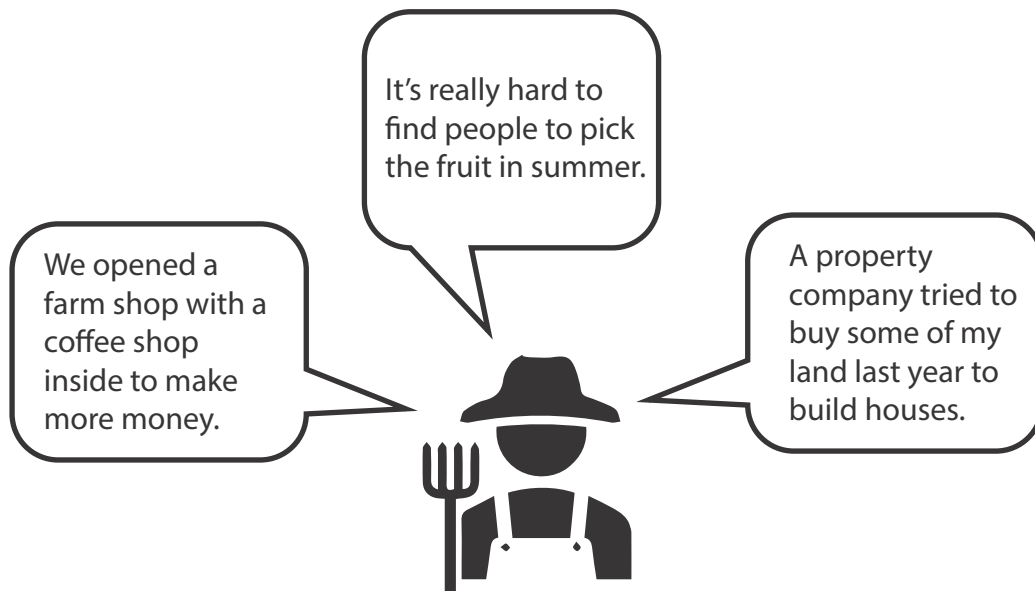
Figure 2c

Views from a farmer in the United States

Figure 3a

An urban area in São Paulo, Brazil
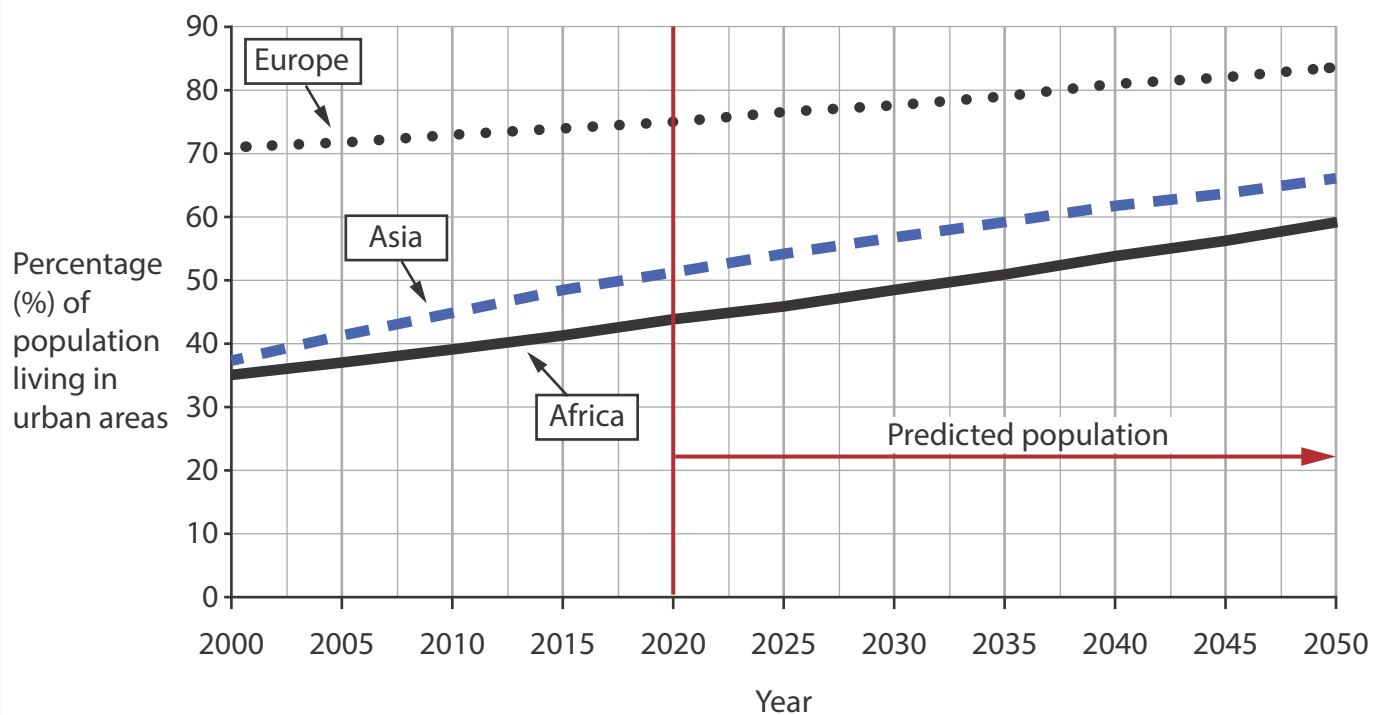
Figure 3b

**Percentage (%) of population, and predicted population, living in
urban areas for selected regions, 2000–2050**

Figure 3c

Comments from a city official in Dhaka, Bangladesh

Figure 4a

Word cloud from questionnaire responses about views on a new solar energy farm

Conclusions	
1	I found that there were a lot of views about the new solar energy farm.
2	The questionnaire showed that most of the local people are against the new development.
3	The photographs show that the solar energy farm is relatively small compared to the number of fields that are currently used for farming.
Evaluations	
4	I think my results were very reliable but if I had more time I would have asked more people to complete my questionnaire.
5	I was able to use newspaper articles about other new solar energy farms to consider if the views from local people were similar.
6	The photographs were good to remind me of the place I visited on fieldwork, but I didn't know how to use them well to present my data.

Figure 4b

An extract from a student's written conclusion and evaluation

busy farming energy view pollution

roads sky litter fields

landscape wildlife tourists

building money rural solar

eyesore local cost

facilities

people destruction
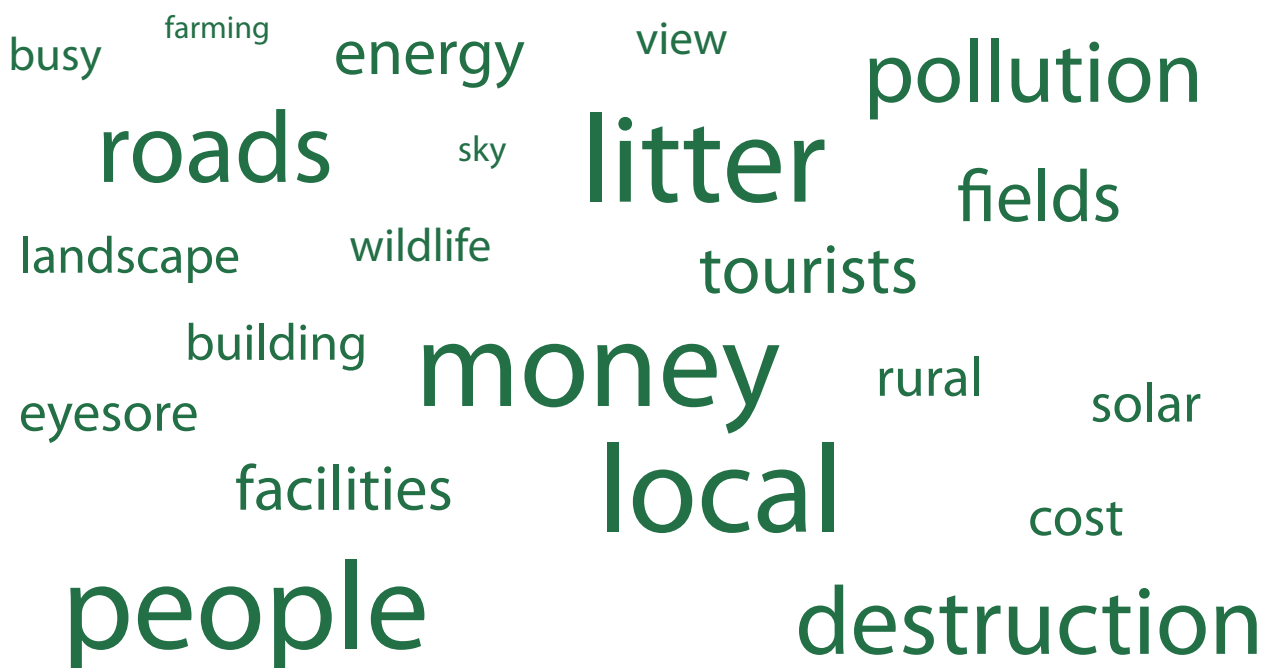
Figure 5a

Word cloud from questionnaire responses about the new visitor centre

Conclusions	
1	I found that there were a lot of views about the new visitor centre.
2	The questionnaire showed that most of the local people are against the new visitor centre.
3	The photographs show that the visitor centre is a small feature in the landscape compared to the number of fields that are currently used for farming.
Evaluations	
4	I think my results were very reliable but if I had more time I would have asked more people to complete my questionnaire.
5	I was able to use newspaper articles about other new tourist facilities to consider if the views from local people were similar.
6	The photographs were good to remind me of the place I visited on fieldwork, but I didn't know how to use them well to present my data.

Figure 5b

An extract from a student's written conclusion and evaluation

Figure 6a

Word cloud from questionnaire responses about the new retail building

Conclusions	
1	I found that there were a lot of views about the new development.
2	The questionnaire showed that most of the local people are against the redevelopment of the building.
3	The photographs show that the new retail building is quite a big feature in the local neighbourhood, compared to the other small businesses around it.
Evaluations	
4	I think my results were very reliable but if I had more time I would have asked more people to complete my questionnaire.
5	I was able to use newspaper articles about redeveloped factories to consider if the views from local people were similar.
6	The photographs were good to remind me of the place I visited on fieldwork, but I didn't know how to use them well to present my data.

Figure 6b

An extract from a student's written conclusion and evaluation
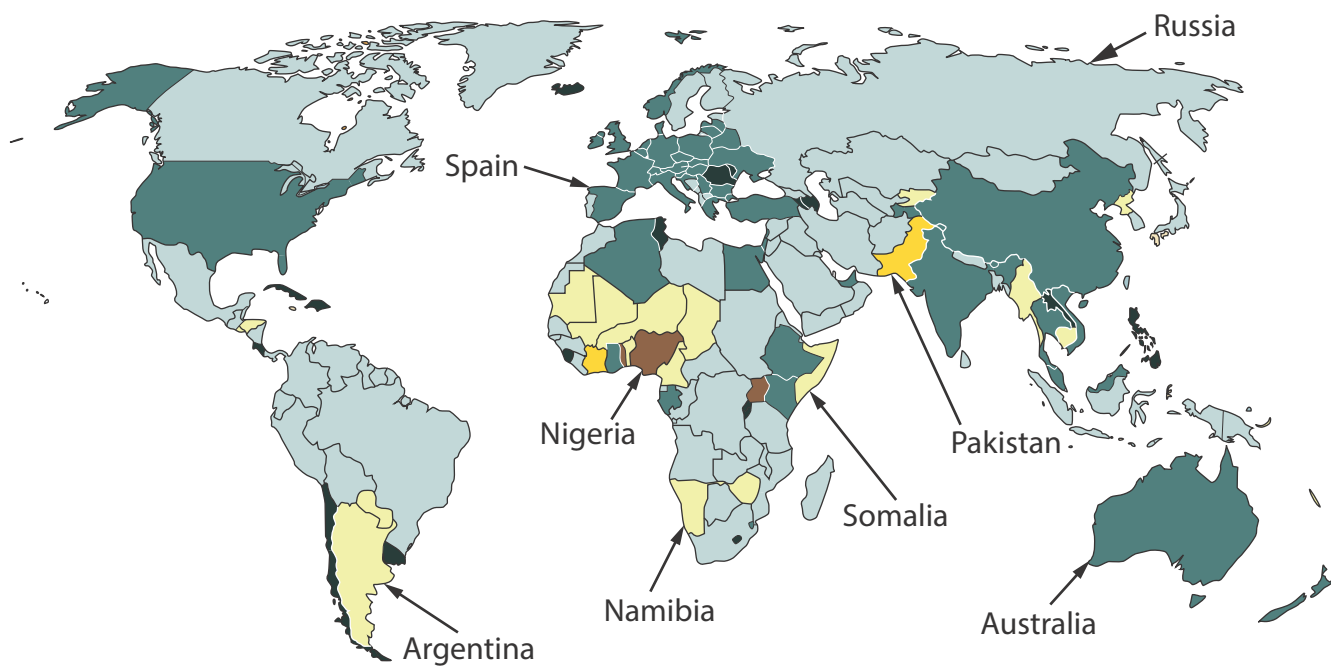
Key: Net percentage (%) change in forest cover

−10% −5% −2.5% −1% **0%** 1% 2.5%
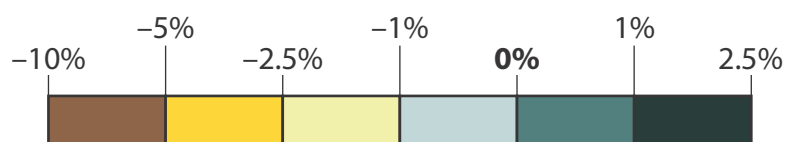
Figure 7a

Annual net percentage (%) change in forest cover, 2019–2020
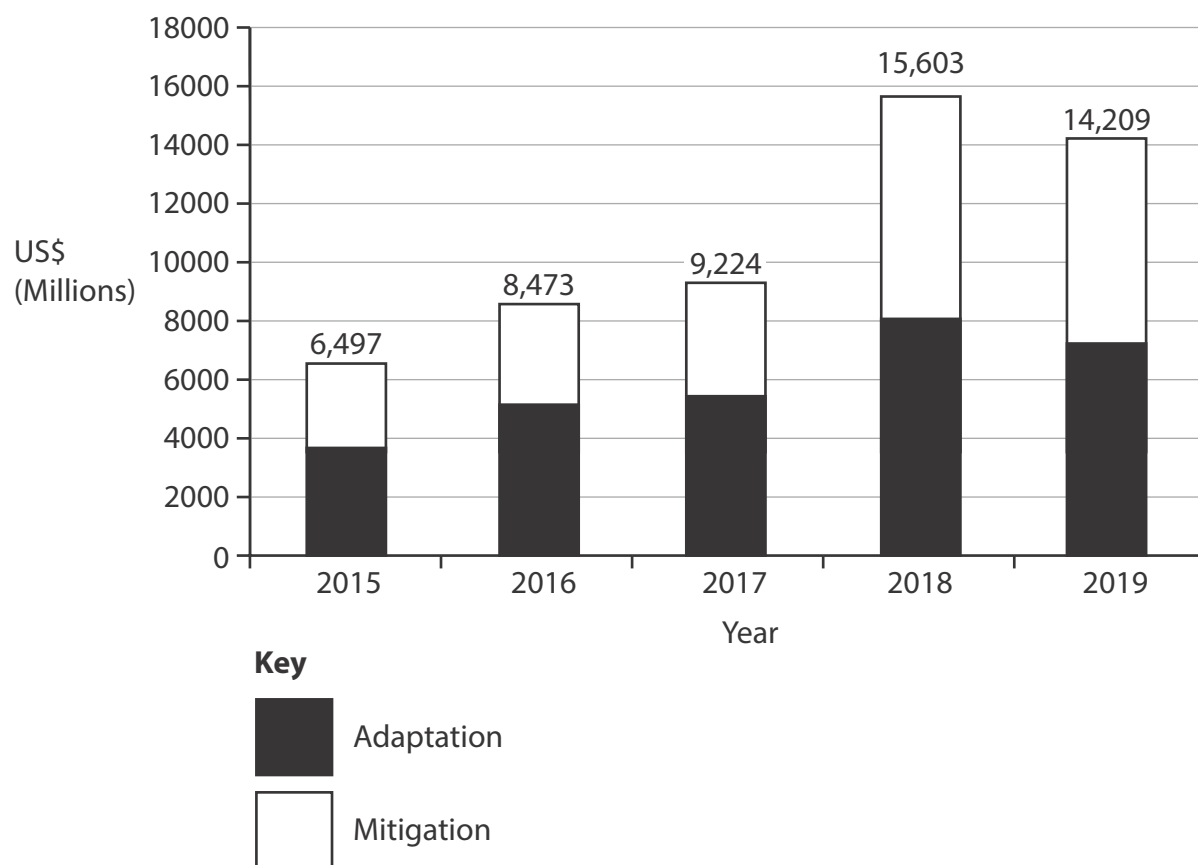
Figure 7b

Money spent by the World Bank on responding to climate change, 2015–2019

Environmental	Social	Economic
Increased soil erosion	Migration	Reduced crop yields
Reduced biodiversity	Famine	Increased poverty

Figure 7c

Selected impacts of desertification
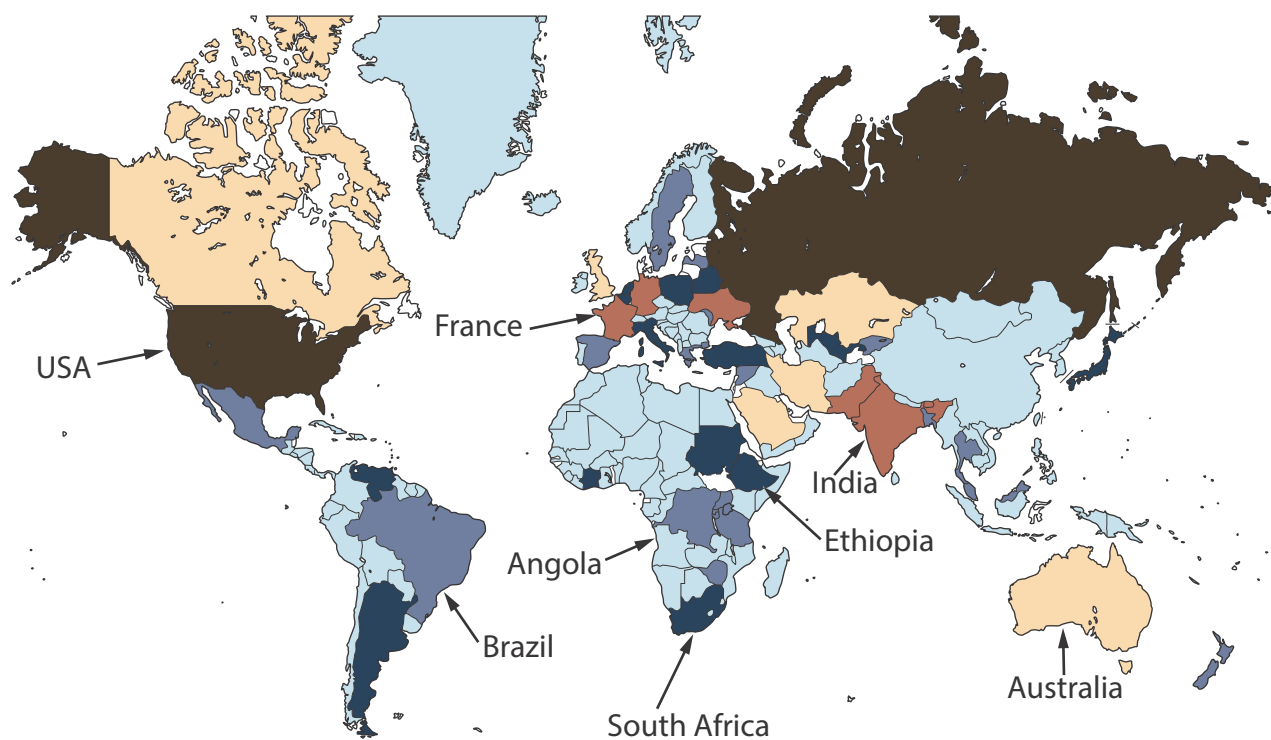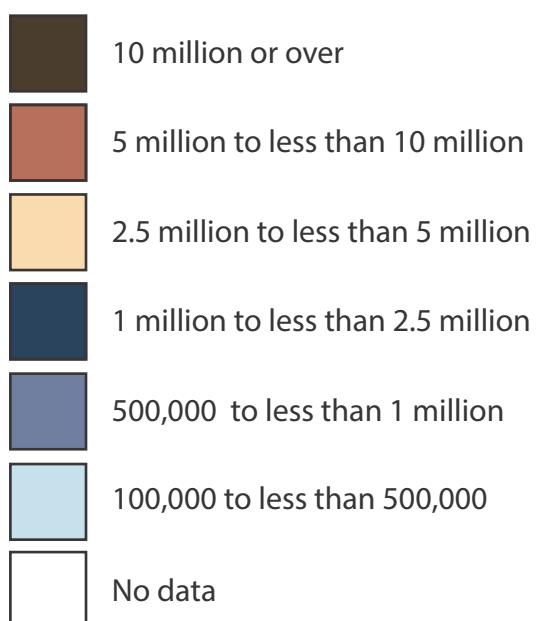
Figure 8a

The number of international migrants, 2019

Key: Number of international migrants

- 10 million or over
- 5 million to less than 10 million
- 2.5 million to less than 5 million
- 1 million to less than 2.5 million
- 500,000 to less than 1 million
- 100,000 to less than 500,000
- No data
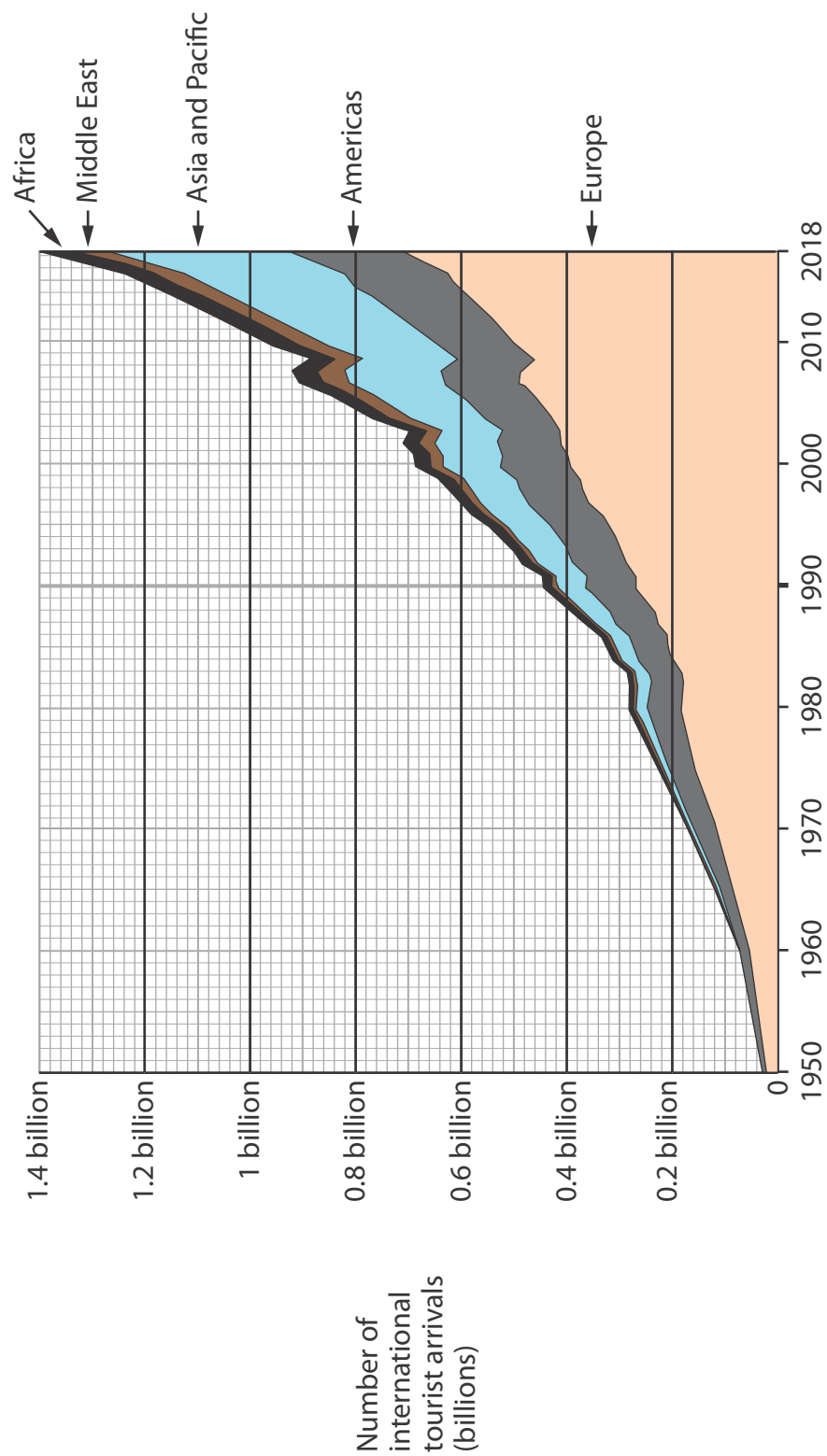
Figure 8b

Number of international tourist arrivals, 1950–2018

Environmental	Social/Cultural	Economic
Disturbing habitats	Eroding some local cultures	Money spent on infrastructure
Increased pollution	Potential for different cultures to mix	Job creation

Figure 8c

Selected impacts of the growth of global tourism
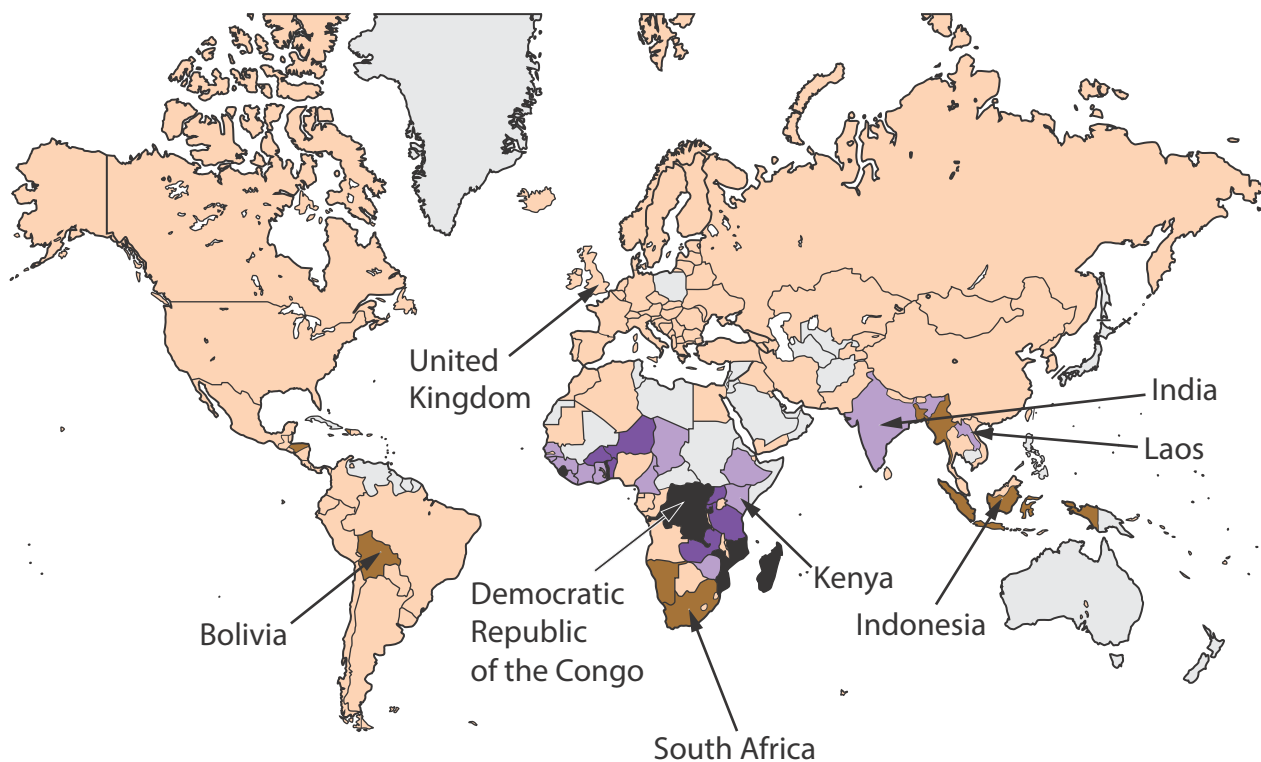
Key
Percentage (%) of people living in extreme poverty

	0–20
	21–40
	41–60
	61–80
	81–100
	No data
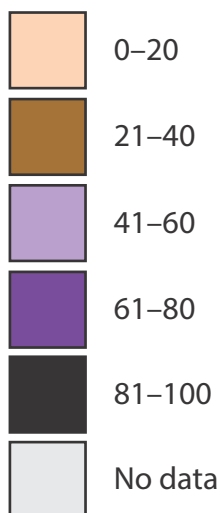
Figure 9a

Percentage (%) of the population living in extreme poverty (2017)

Extreme poverty is defined as living with per capita household consumption below $1.9 per day
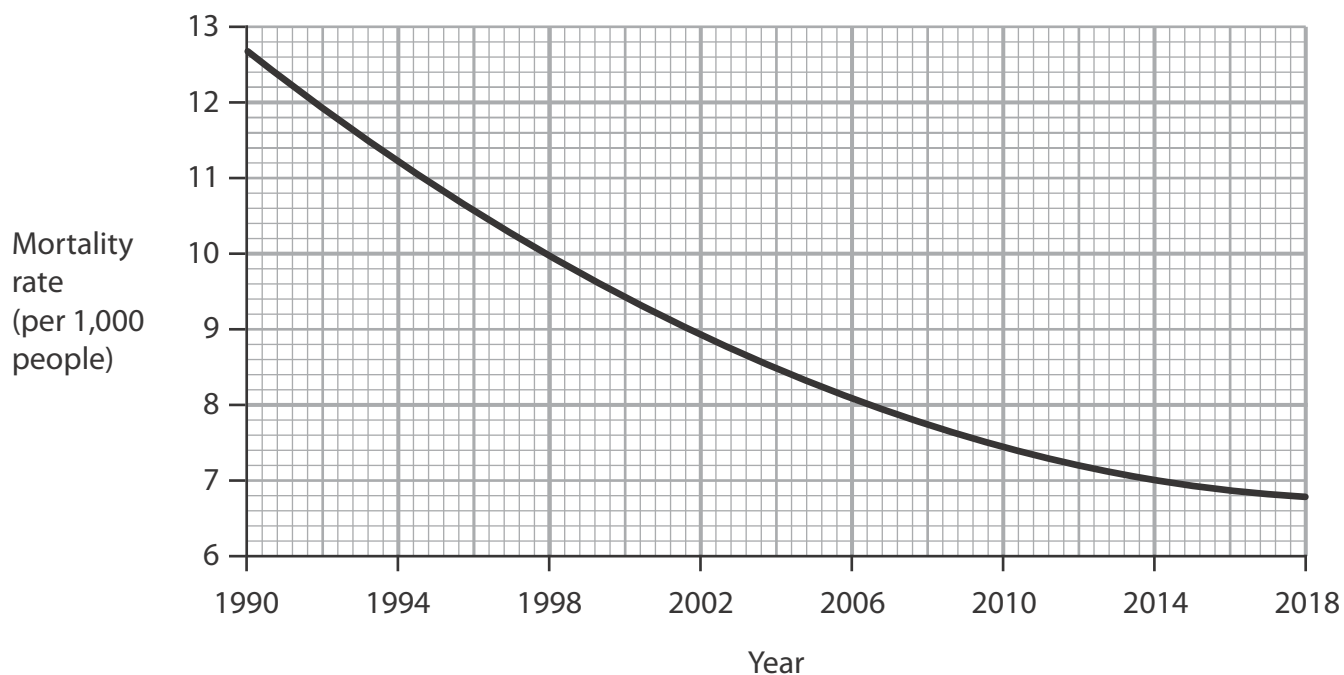
Figure 9b

Mortality rate in Bolivia, 1990–2018
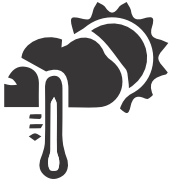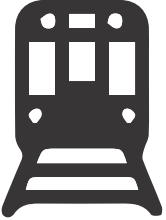
Environmental	Social	Economic
Landscape features	Housing quality	Availability of employment
Climate	Access to services	Efficient transport systems

Figure 9c

Selected factors that affect uneven development within countries

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