

Please check the examination details below before entering your candidate information

Candidate surname					Other names				
Centre Number					Candidate Number				

Pearson Edexcel International GCSE (9–1)

Friday 6 June 2025

Afternoon (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 ►

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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** feature of tertiary sector industries.

(1)

- ☐ **A** provision of irrigation
- ☐ **B** provision of services
- ☐ **C** use of fertilisers
- ☐ **D** use of machinery

(ii) State **one** factor that affects the location of tertiary sector industries.

(1)

(b) Identify **one** stage from the Clark Fisher model.

(1)

- ☐ **A** crisis point
- ☐ **B** globalisation
- ☐ **C** industrial
- ☐ **D** regeneration

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

Suggest **one** reason for the change in primary sector employment.

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

(2)

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(d) State **one** example of a non-renewable energy source.

(1)

(e) Explain **two** ways transport can be made more sustainable.

(4)

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

Suggest **one** potential impact of expanding wind energy production on the landscape shown.

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

(3)

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- (g) For a named developing or emerging country, explain **two** factors that can affect energy demand.

(4)

Developing or emerging country

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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 the location where tropical rainforests are usually found.

(1)

- ☐ **A** between 23.5°N and 40°N of the equator
- ☐ **B** between 66.50°S and 90°S of the equator
- ☐ **C** between the Tropic of Cancer and the Arctic Circle
- ☐ **D** between the Tropic of Cancer and the Tropic of Capricorn

(ii) State **one** characteristic of a tundra biome.

(1)

(b) Identify **one** type of service provided by grasslands.

(1)

- ☐ **A** plants used for medicines
- ☐ **B** regulate air quality
- ☐ **C** timber for building
- ☐ **D** wheat for flour production

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

Suggest **one** piece of evidence humans have changed this environment.

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

(2)

(d) State **one** strategy used to improve air quality in rural environments.

(1)

- (e) Explain **one** advantage and **one** disadvantage of using genetically modified (GM) crops.

(4)

advantage

disadvantage

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

Suggest **one** way governments can reduce isolation in rural environments.

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

(3)



- (g) Explain **two** ways farm economies are changing in a named developing or emerging country.

(4)

Named developing or emerging country

1

2



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

Analyse the possible changes to rural areas caused by the trend shown.

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

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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 the correct definition of a megacity.

(1)

- ☐ **A** a city with a population over 1 million people
- ☐ **B** a city with a population over 5 million people
- ☐ **C** a city with a population over 8 million people
- ☐ **D** a city with a population over 10 million people

(ii) State **one** factor that has led to the growth of megacities.

(1)

(b) Identify **one** cause of air pollution in cities.

(1)

- ☐ **A** coal-fired power stations
- ☐ **B** installation of solar panels
- ☐ **C** palm oil plantations
- ☐ **D** use of electric cars

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

Suggest **one** way politicians could manage an environmental challenge in this urban area.

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

(2)



(d) State **one** reason why segregation of groups of people in cities can be a challenge.

(1)

(e) Explain **two** reasons for counter-urbanisation.

(4)

1

2

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

Suggest **one** way the growth of informal settlements (squatter settlements) may create challenges in urban areas.

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

(3)

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(g) Explain **two** reasons for the development of the rural-urban fringe.

(4)

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(Total for Question 3 = 25 marks)

TOTAL FOR SECTION A = 50 MARKS



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

Study Figures 4a and 4b in the Resource Booklet. They show some information about data collection methods students used and an extract from their questionnaire results.

The aim of the students' enquiry was to investigate views on the use of solar panels in residential areas in Paris.

- (a) Identify **one** piece of equipment that could be used in this enquiry. (1)

- (b) Identify **one** type of secondary data collected by the students. (1)

- (c) Explain why the students may have chosen random sampling for the questionnaire. (3)

- (d) (i) Plot the data for Site 1, Question 3, from Figure 4b in the Resource Booklet, to complete the bar chart in Figure 4c in the Question Paper.

(2)

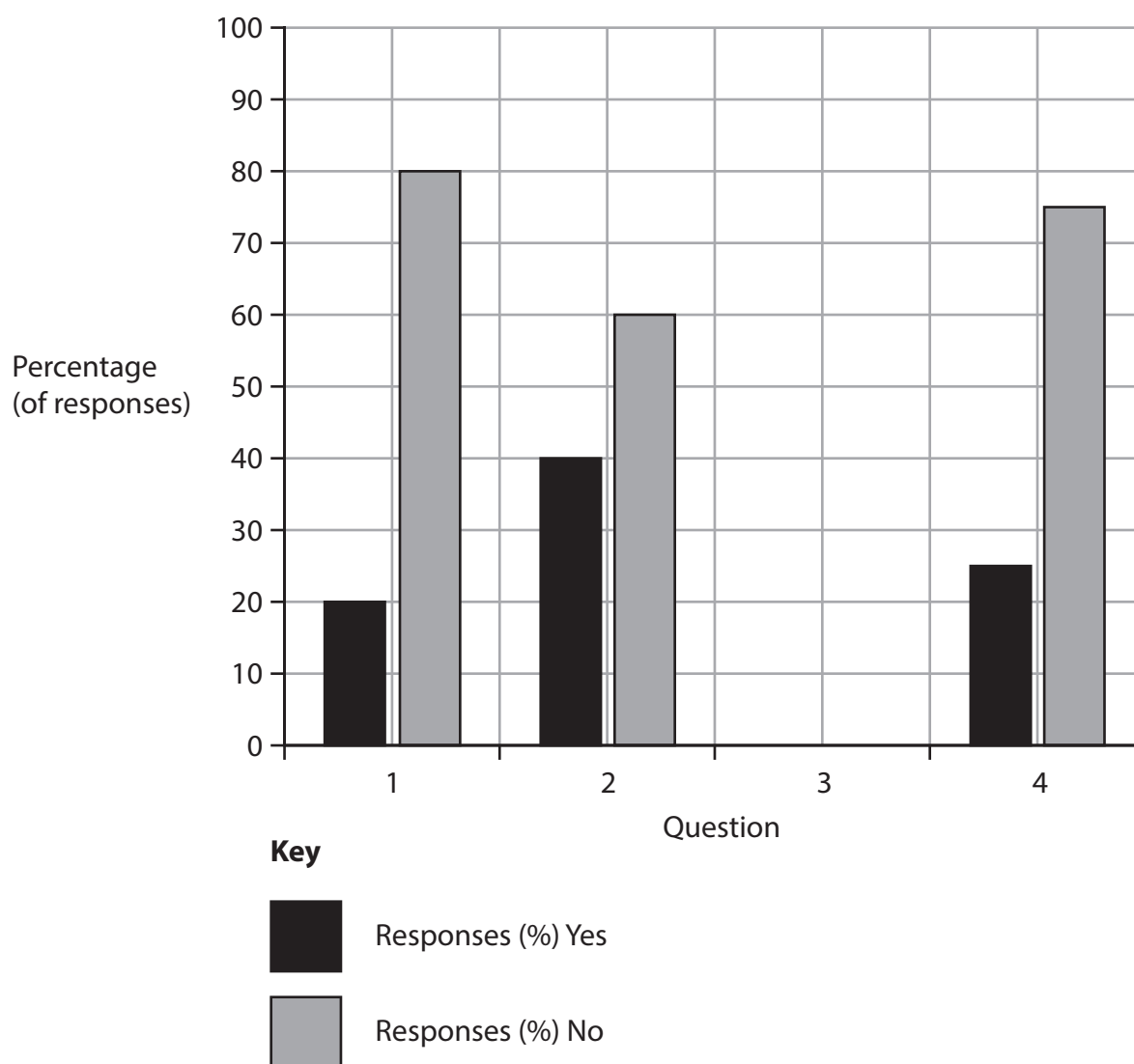


Figure 4c



- (ii) State **one other** data presentation method that could have been used for the data shown in Figure 4c.

(1)

- (iii) Calculate the range in the number of responses for respondents that selected 'Yes' for Question 2 in Figure 4b in the Resource Booklet.

You **must** show all your workings.

(2)

- (e) State **one** advantage and **one** disadvantage of the data presentation method used in Figure 4c.

(2)

advantage

disadvantage

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- (f) You have studied economic activity and energy as part of your own geographical enquiry.

Evaluate the importance of qualitative data in helping you reach your conclusions.

(8)

State the title of your geographical enquiry.



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(Total for Question 4 = 20 marks)



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QUESTION 5 BEGINS ON THE NEXT PAGE.



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

5 Investigating rural environments

Study Figures 5a and 5b in the Resource Booklet. They show some information about data collection methods students used and an extract from their questionnaire results.

The aim of the students' enquiry was to investigate views on building a new housing estate on the edge of a village in Northern Spain.

- (a) Identify **one** piece of equipment that could be used in this enquiry. (1)

- (b) Identify **one** type of secondary data used by the students. (1)

- (c) Explain why the students may have chosen random sampling for the questionnaire. (3)

- (d) (i) Plot the data for Site 1, Question 3, from Figure 5b in the Resource Booklet, to complete the bar chart in Figure 5c in the Question Paper.

(2)

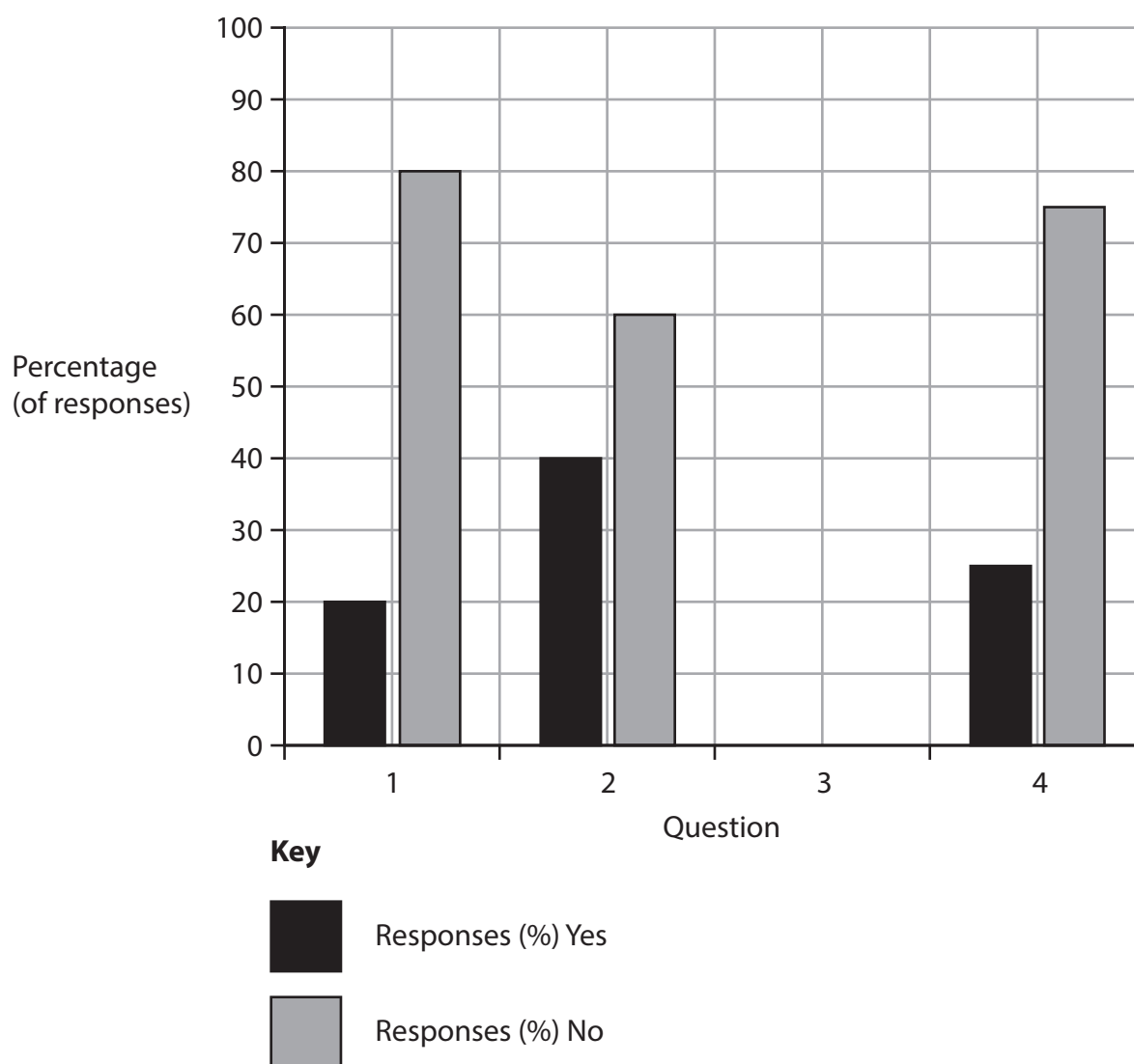


Figure 5c



(ii) State **one other** data presentation method that could have been used for the data shown in Figure 5c.

(1)

(iii) Calculate the range in the number of responses for respondents that selected 'Yes' for Question 2 in Figure 5b in the Resource Booklet.

You **must** show all your workings.

(2)

(e) State **one** advantage and **one** disadvantage of the data presentation method used in Figure 5c.

(2)

advantage

disadvantage

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

Evaluate the importance of qualitative data in helping you reach your conclusions.

(8)

State the title of your geographical enquiry.

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QUESTION 6 BEGINS ON THE NEXT PAGE.



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

6 Investigating urban environments

Study Figures 6a and 6b in the Resource Booklet. They show some information about data collection methods students used and an extract from their questionnaire results.

The aim of the students' enquiry was to investigate changes taking place to retailing in the central shopping area of Hong Kong, China.

- (a) Identify **one** piece of equipment that could be used in this enquiry. (1)

- (b) Identify **one** type of secondary data used by the students. (1)

- (c) Explain why the students may have chosen random sampling for the questionnaire. (3)

- (d) (i) Plot the data for Site 1, Question 3, from Figure 6b in the Resource Booklet, to complete the bar chart in Figure 6c in the Question Paper.

(2)

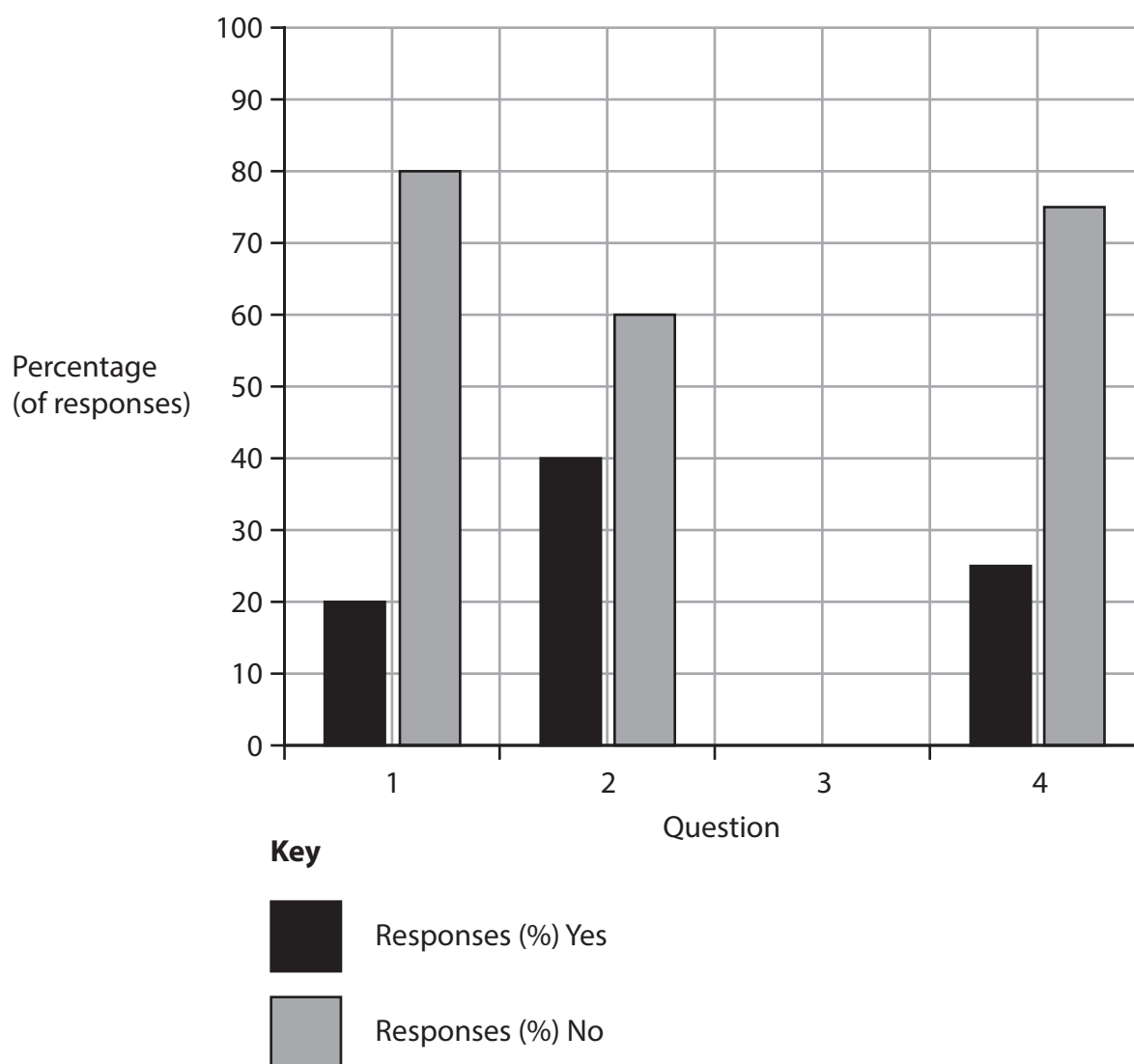


Figure 6c



(ii) State **one other** data presentation method that could have been used for the data shown in Figure 6c.

(1)

(iii) Calculate the range in the number of responses for respondents that selected 'Yes' for Question 2 in Figure 6b in the Resource Booklet.

You **must** show all your workings.

(2)

(e) State **one** advantage and **one** disadvantage of the data presentation method used in Figure 6c.

(2)

advantage

disadvantage

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- (8)

State the title of your geographical enquiry.

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(Total for Question 6 = 20 marks)

TOTAL FOR SECTION B = 20 MARKS



SECTION C

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) Identify **one** characteristic associated with tropical rainforests.

(1)

- ☐ A high humidity
- ☐ B high latitude
- ☐ C low biodiversity
- ☐ D low rainfall

(ii) Identify **one** reason why tropical rainforests are considered fragile.

(1)

- ☐ A dense canopy of trees
- ☐ B infertile soils
- ☐ C moderate temperatures
- ☐ D water surplus

(iii) State **two** impacts of deforestation.

(2)

1

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

Identify **one** labelled country with the most people at risk from sea level rise.

(1)

(ii) Describe the pattern of risk in South America.

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

(2)

(iii) Suggest **one** reason for the pattern shown.

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

(2)

(iv) Suggest **one** way this data could be used by international organisations.

(2)

(c) Sea level rise is one impact of climate change.

State **two other** impacts of climate change.

(2)

1

2

(d) Explain how solar variations and farming contribute to climate change.

(4)

solar variations

farming



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(f) Discuss the view:

"The greatest impacts of climate change will be linked to sea level rise."

Use Figures 7a and 7b 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 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 **one** push factor for migration.

(1)

- ☐ **A** conflict forces people to move
- ☐ **B** good air quality near homes
- ☐ **C** people have the choice to move location
- ☐ **D** places have jobs with higher wages

(ii) Identify **one** type of voluntary migration.

(1)

- ☐ **A** being a climate refugee
- ☐ **B** due to natural disaster
- ☐ **C** to avoid areas of conflict
- ☐ **D** to gain access to education

(iii) State **two** impacts of rural-urban migration.

(2)

1

2

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

Identify **one** labelled country with the highest level of positive net migration.

(1)

.....

(ii) Describe the pattern of net migration for Europe.

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

(2)

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- (iii) Suggest **one** possible impact of the pattern shown for host (destination) countries.

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

(2)

- (iv) Suggest **one** reason Figure 8a may be useful for understanding the global economy.

(2)

- (c) State **two** reasons for the growth of mass tourism.

(2)

1

2

- (d) Explain **two** economic impacts of mass tourism.

(4)

1

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

Assess the impacts of transnational corporations (TNCs).

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

(6)



(f) Discuss the view:

"Transnational corporations (TNCs) are one of the most important factors for the growth of the global economy."

Use Figures 8a and 8b 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)



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

9 Development and human welfare

- (a) (i) Identify the country considered to be the most economically developed, as measured by gross domestic product (GDP) per capita.

(1)

- ☐ **A** Cyprus GDP per capita US\$32,281
- ☐ **B** Norway GDP per capita US\$89,242
- ☐ **C** Poland GDP per capita US\$17,739
- ☐ **D** Qatar GDP per capita US\$66,799

- (ii) State **two** features of population structure shown on a population pyramid.

(2)

1

2

- (iii) Identify **one** factor that is likely to affect maternal mortality rates.

(1)

- ☐ **A** access to sea ports for transport
- ☐ **B** availability of tourist information
- ☐ **C** cost of solar panel installation
- ☐ **D** quality of healthcare services

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

Identify **one** labelled country with the highest level of water insecurity.

(1)

.....

(ii) Describe the pattern of water security in Africa.

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

(2)

(iii) Suggest **one** reason for the pattern shown.

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

(2)

(iv) Suggest **one** way the pattern shown could affect human welfare.

(2)

(c) State **two** strategies designed to reduce uneven development.

(2)

1

2



- (d) Explain why the Human Development Index (HDI) and measures of inequality are useful for understanding differences in development.

(4)

Human Development Index (HDI)

measures of inequality



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

Assess the factors that have led to the uneven development between countries.

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

(6)



(f) Discuss the view:

"Efforts to reduce the development gap should always focus on economic improvements."

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

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

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



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Pearson Edexcel International GCSE (9–1)

Friday 6 June 2025

Afternoon (Time: 1 hour 45 minutes)

**Paper
reference**

4GE1/02

Geography

PAPER 2: Human geography

Resource Booklet

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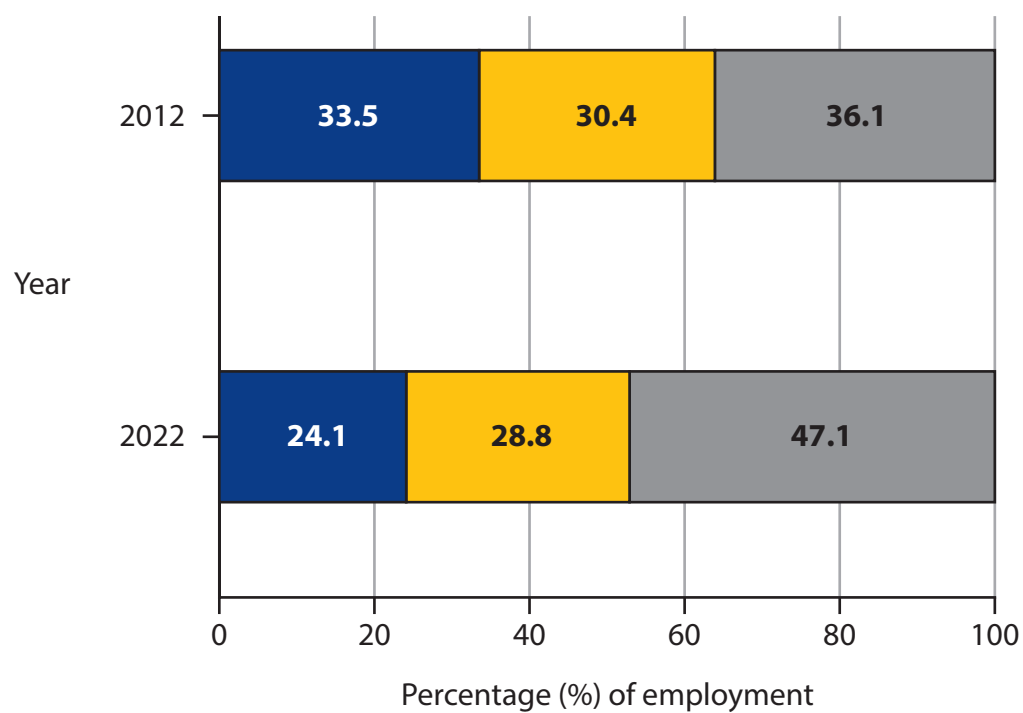
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Key: Employment sector



Primary



Secondary



Tertiary and quaternary

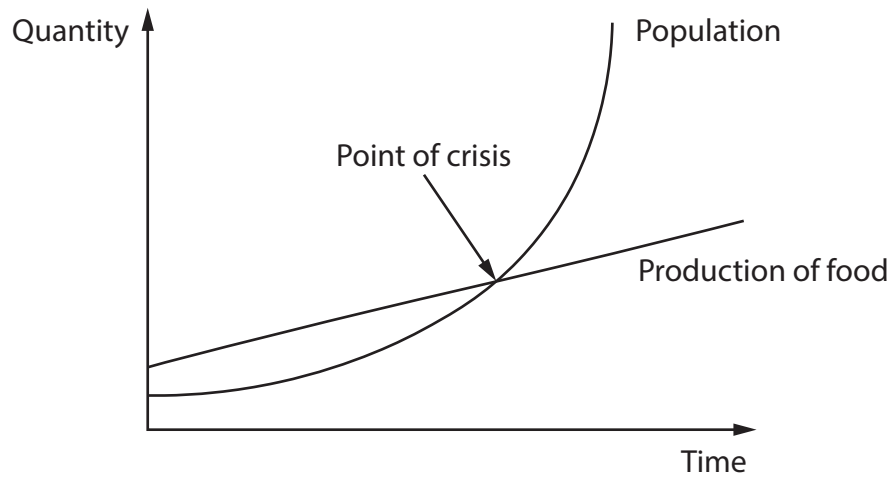
Figure 1a
Percentage of employment in China, 2012 and 2022



Figure 1b

Wind turbines near Marsberg, Germany

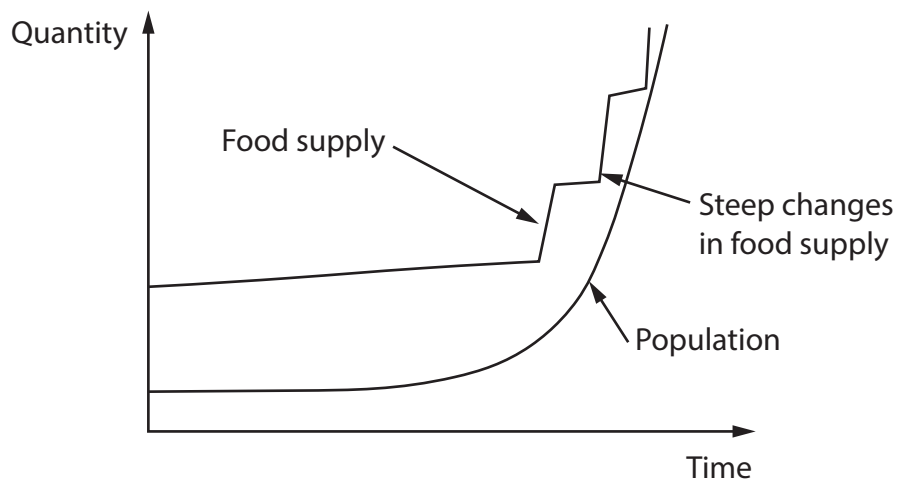
Thomas Malthus theory



Pessimistic
(expects the worst will happen)

Population growth will outstrip resources.

Ester Boserup theory



Optimistic
(hopeful and confident about the future)

Resources can keep pace with population growth.

Figure 1c

Views on the relationship between population growth and resource availability



Figure 2a

A rural environment in Bali, Indonesia

Study finds elderly 'isolated in rural environments'.

Cuts to bus services may present problems for many older people who live in the countryside.

A lack of shops, access to health and social care, and difficulties getting broadband also create obstacles.

Figure 2b

Extract from news article on rural isolation

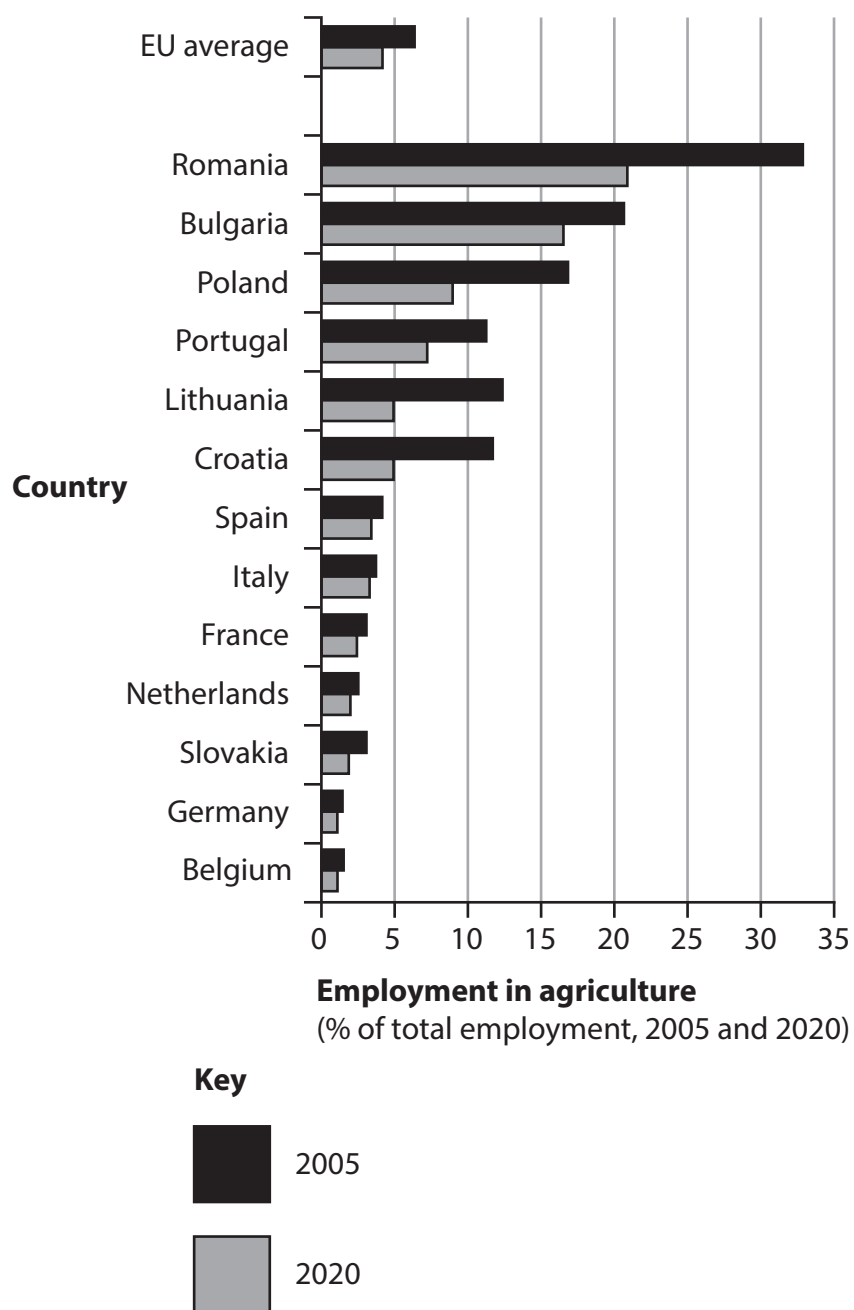
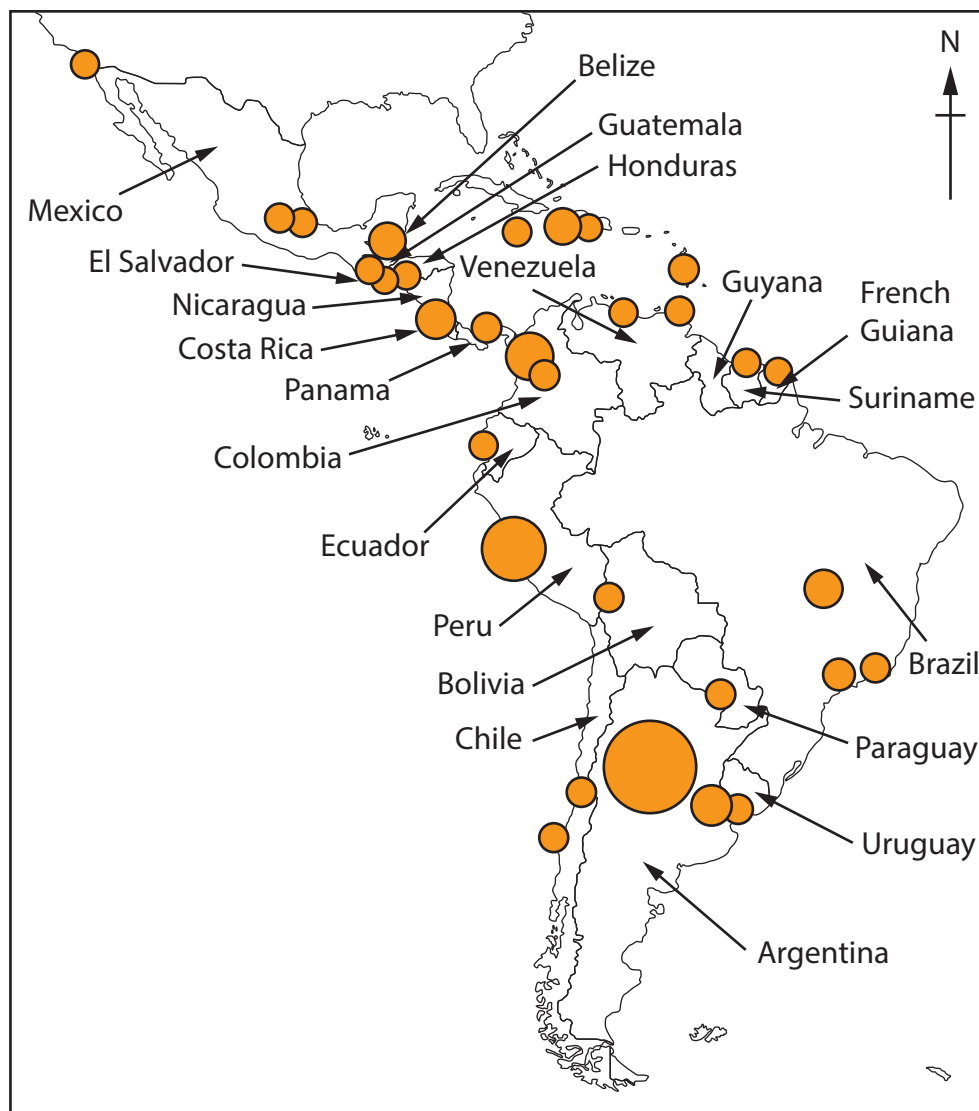


Figure 2c

Employment in agriculture for selected countries in the European Union, 2005 and 2020



Figure 3a
River in an urban area



Key: Percentage growth per year

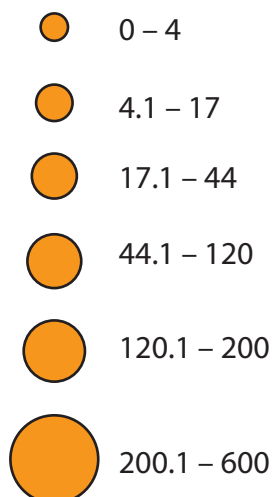


Figure 3b

Informal settlement (squatter settlement) annual percentage (%) growth in urban areas in Central and South America

Improvements in transportation	Improvements in electricity supply
	
Dhaka Mass Rapid Transit (MRT), Bangladesh	Distributed access through renewable energy scale-up Project (DARES), Africa
- Dhaka is Bangladesh's largest city, one of the most congested cities in the world. - Several rail lines connecting key areas of the city are being developed. - For example, Line 6 to government offices and hospitals in the north.	600 million people in Africa do not have access to electricity connections. - The World Bank, with other investors, is improving electrification of areas. - For example, installing solar mini grids and solar home systems.
<i>"A lot of time is wasted by traffic congestion. Giving us access to public transport is life changing."</i>	<i>"Electricity (through DARES) helps to improve other things in our lives from food insecurity to gender equality."</i>

Figure 3c

Strategies to improve quality of life in cities

	Data collection methods	Details
1	• Environmental quality survey	• Conducted in three places where solar panels were visible.
2	• Questionnaires	• 20 people in the area selected at random.
3	• Photographs	• Taken at each site for environmental quality survey and where questionnaires collected.
4	• Information on schemes for homeowners to install solar panels.	• Websites and leaflets with details on local solar power schemes.
5	• Data on the number of solar panels in Paris.	• Data collected for 2014 to 2024.

Figure 4a

Data collection methods used

Question		Responses (%)					
		Site 1		Site 2		Site 3	
		Yes	No	Yes	No	Yes	No
1	Do you have solar panels at home?	20	80	0	100	10	90
2	Do you know other people who have solar panels at home?	40	60	20	80	50	50
3	Do you think the government should provide grants to encourage people to have solar panels?	95	5	80	20	75	25
4	Do you think solar panels are suitable for every home?	25	75	50	50	40	60

Figure 4b

Extract from questionnaire results

	Data collection methods	Details
1	• Environmental quality survey	• Conducted in three places in and around the village.
2	• Questionnaires	• 20 people in the area selected at random.
3	• Photographs	• Taken at each site for environmental quality survey and where questionnaires collected.
4	• Information on new housing estate and property prices in the area.	• Websites and real estate agent leaflets.
5	• Data on the number of residents in the village.	• Data collected for 2014 to 2024.

Figure 5a

Data collection methods used

		Responses (%)					
Question		Site 1		Site 2		Site 3	
		Yes	No	Yes	No	Yes	No
1	Do you live in the village?	20	80	0	100	10	90
2	Do you know other people who live in this village?	40	60	20	80	50	50
3	Do you think there should be development of new homes in the area?	95	5	80	20	75	25
4	Do you think there are enough services to support more residents?	25	75	50	50	40	60

Figure 5b

Extract from questionnaire results

	Data collection methods	Details
1	• Environmental quality survey	• Conducted in three places in the central retail area.
2	• Questionnaires	• 20 people in the area selected at random.
3	• Photographs	• Taken at each site for environmental quality survey and where questionnaires collected.
4	• Information on property prices for businesses in the area.	• Websites and leaflets with details about local businesses.
5	• Data on the number of businesses that have opened and closed in the area.	• Data collected for 2014 to 2024.

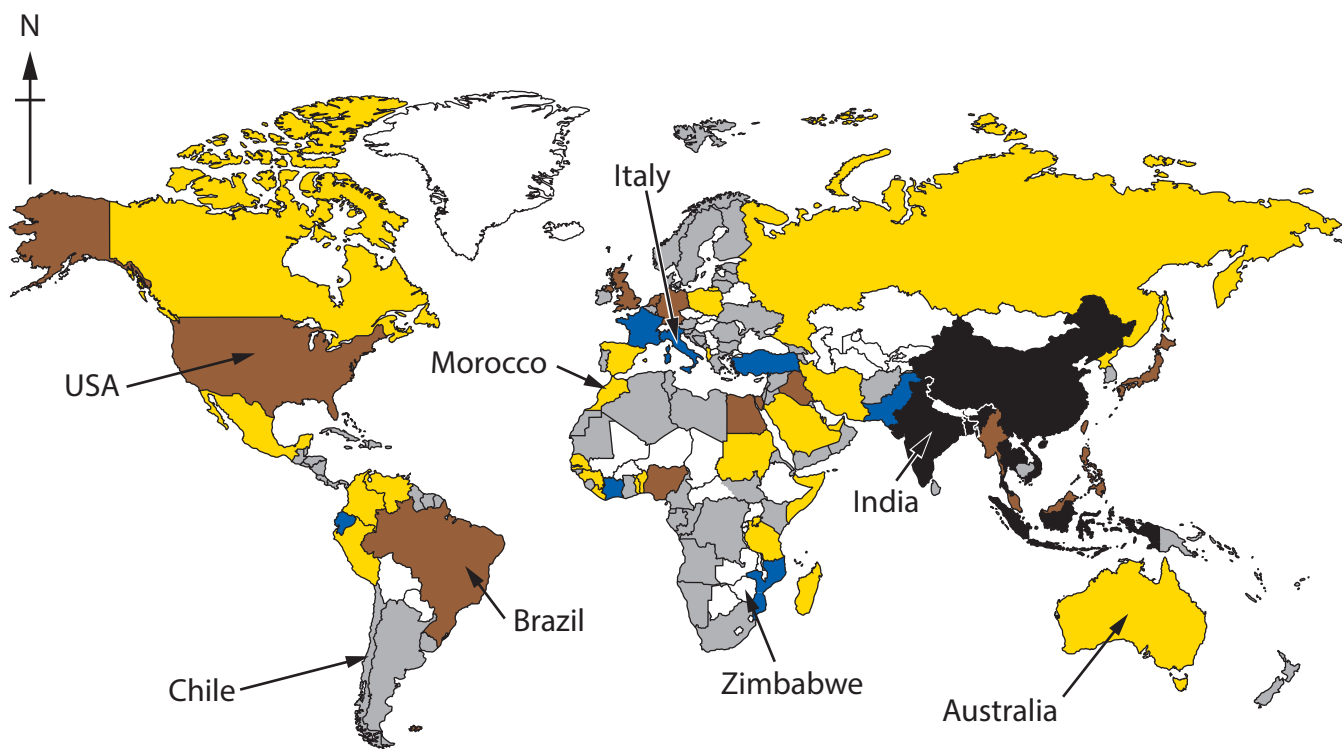
Figure 6a

Data collection methods used

Question		Responses (%)					
		Site 1		Site 2		Site 3	
		Yes	No	Yes	No	Yes	No
1	Do you shop here regularly?	20	80	0	100	10	90
2	Do you know other people who shop here regularly?	40	60	20	80	50	50
3	Do you think the government should support businesses to open in the city centre?	95	5	80	20	75	25
4	Do you think the city centre is suitable for all types of shops?	25	75	50	50	40	60

Figure 6b

Extract from questionnaire results



Key: Number of people

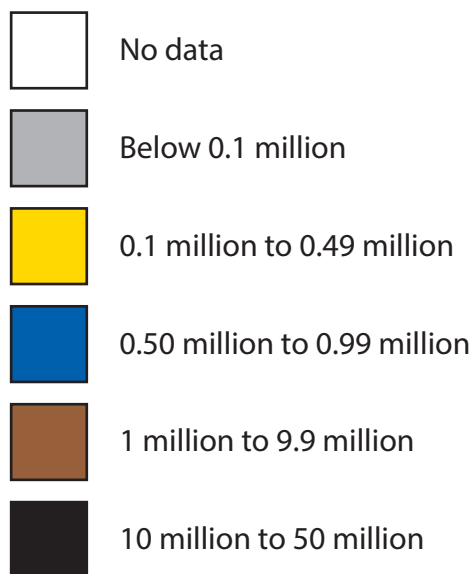


Figure 7a

Number of people per country at risk from predicted sea level rise by 2100

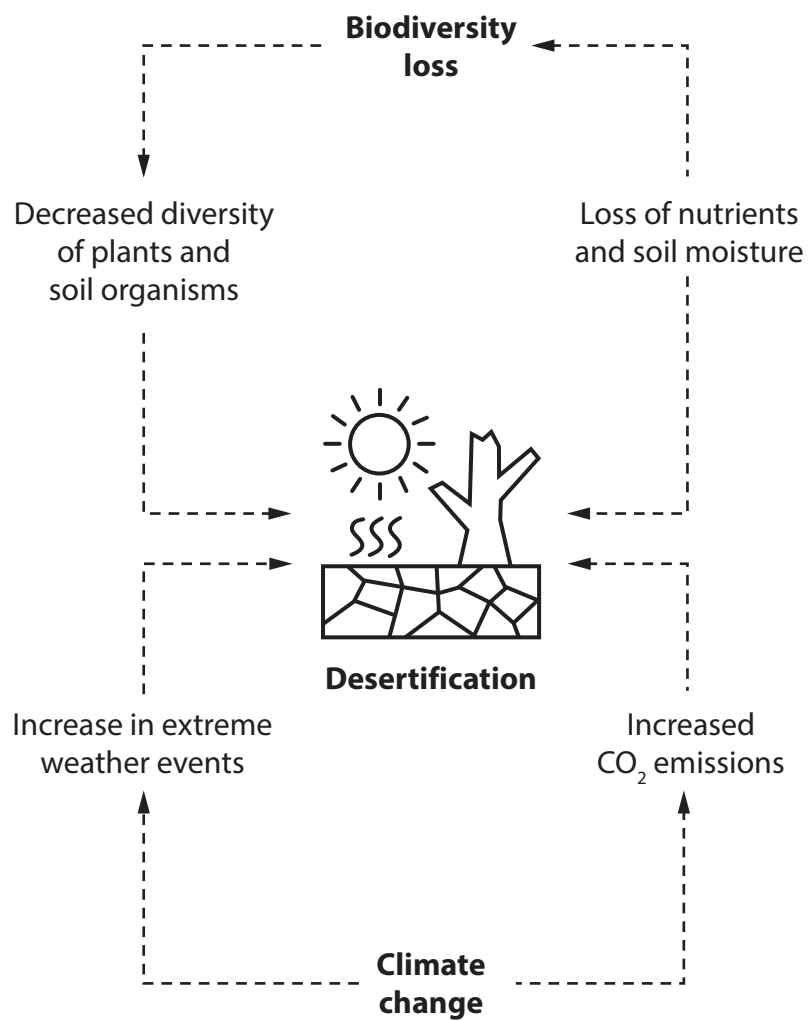
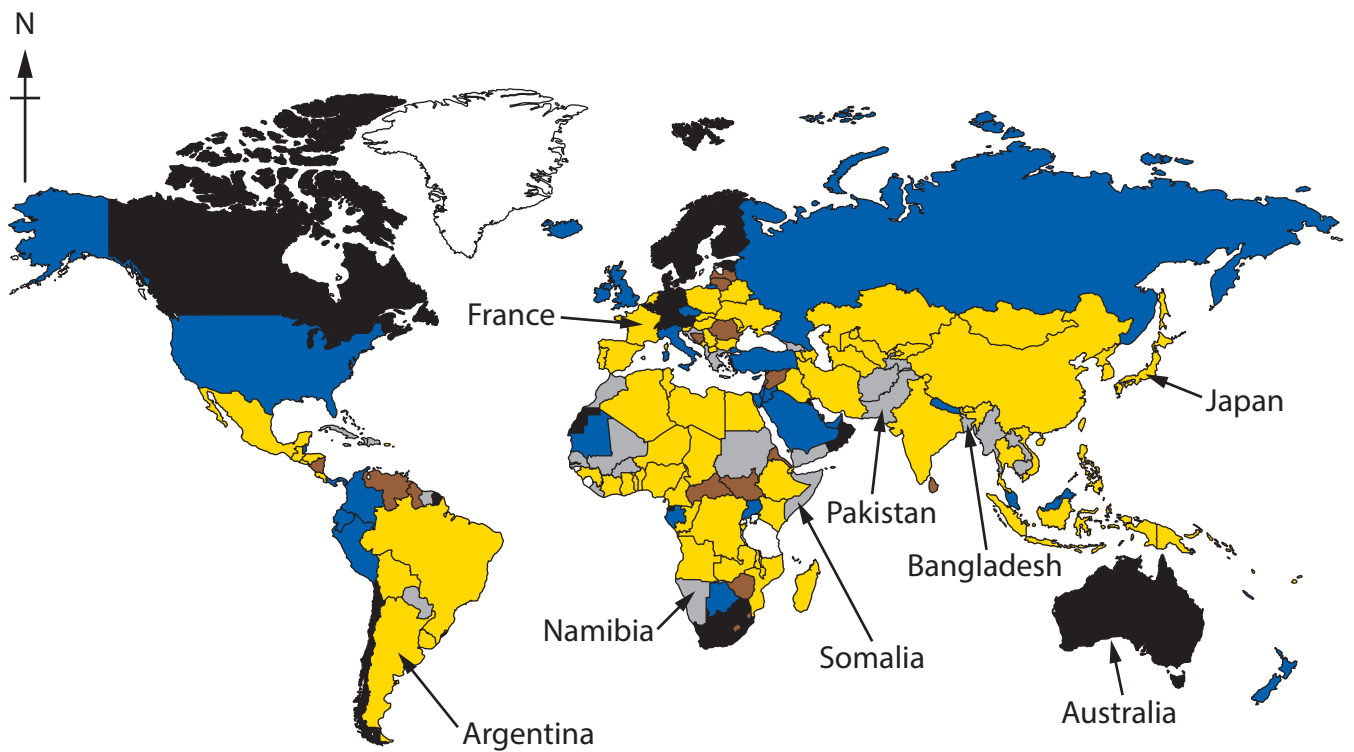


Figure 7b
Causes and impacts of desertification



Key: Net annual migration (per 1,000 people)

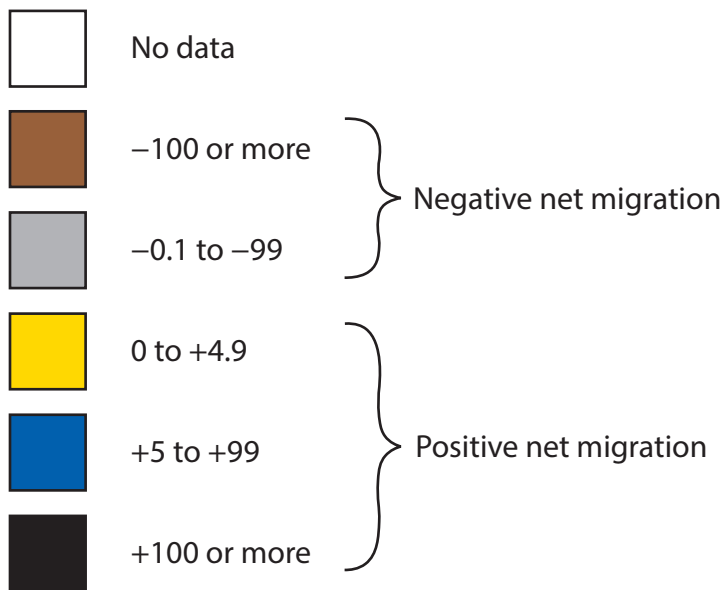


Figure 8a

Net annual migration per 1000 population, 2020

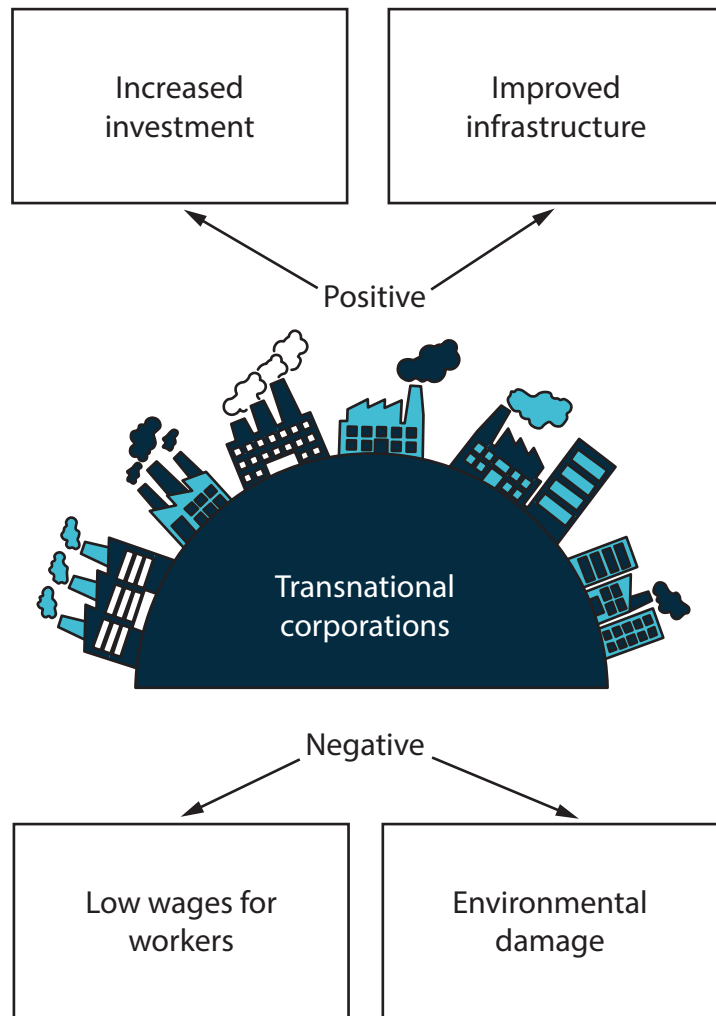
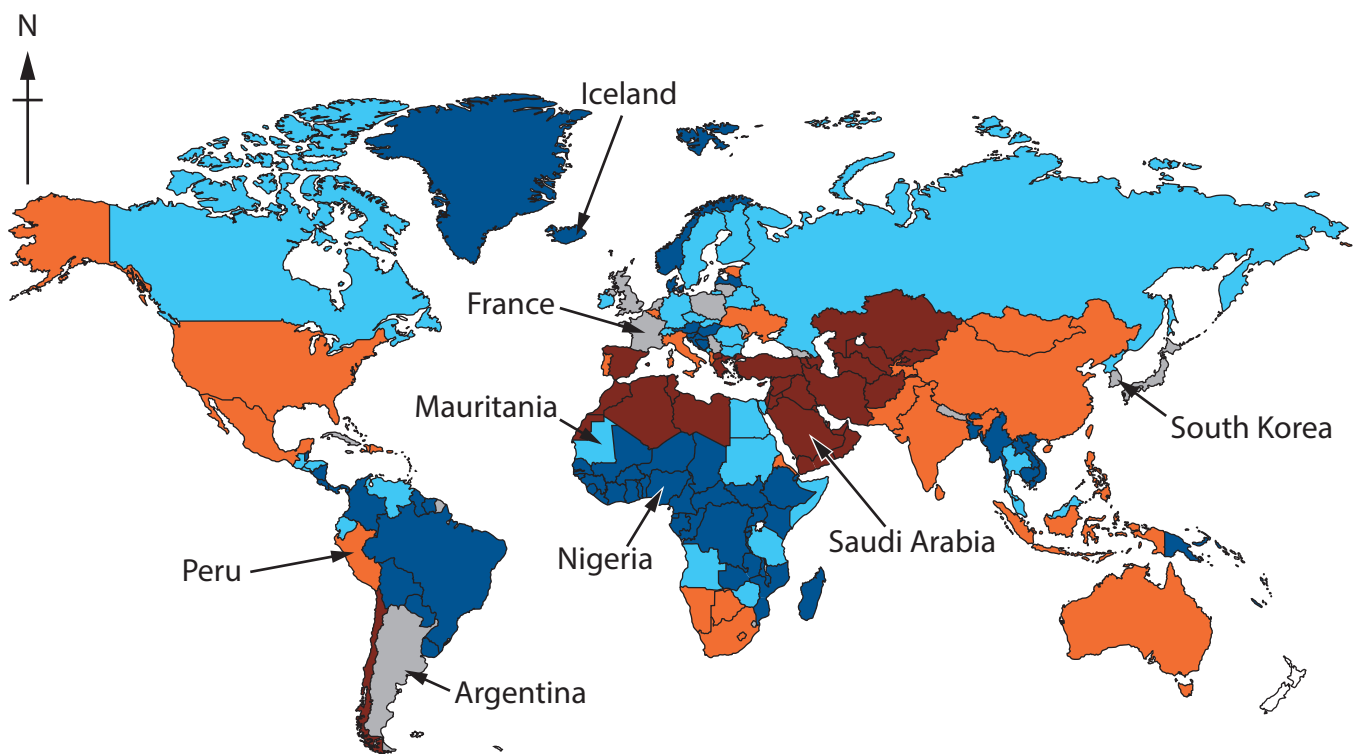


Figure 8b

Selected impacts of transnational corporations (TNCs)



Key: Global water stress level

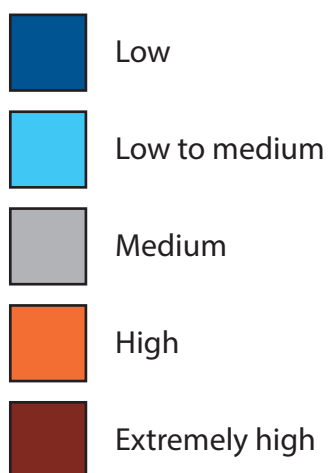


Figure 9a
Global water stress (insecurity) by 2040

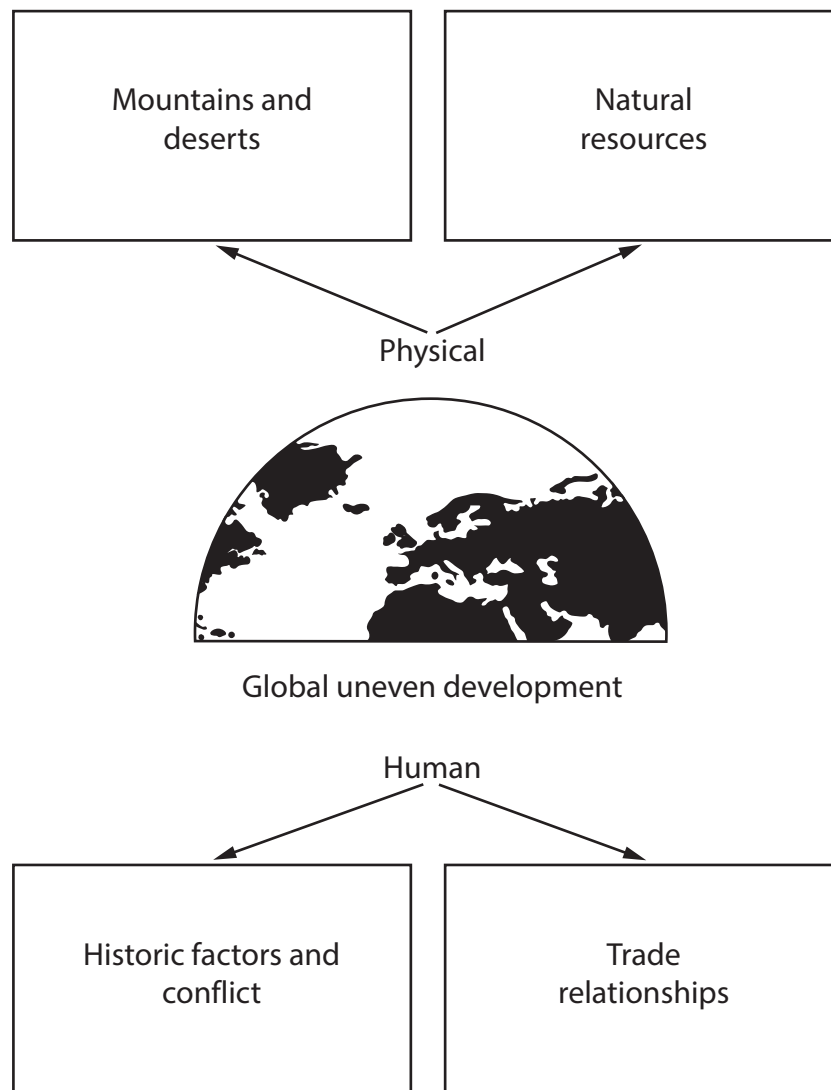


Figure 9b

Selected factors contributing to uneven development between countries

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Acknowledgements

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