

Please check the examination details below before entering your candidate information

Candidate surname					Other names									
Pearson Edexcel International GCSE (9–1)					Centre Number					Candidate Number				
					<input type="text"/>					<input type="text"/>				
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 97.
- 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.
- Good luck with your examination.

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) Define the term **energy gap**.

(1)

(ii) Identify the **two** forms of renewable energy.

(2)

<input type="checkbox"/>	A Coal
<input type="checkbox"/>	B Oil
<input type="checkbox"/>	C Natural gas
<input type="checkbox"/>	D Shale gas
<input type="checkbox"/>	E Solar
<input type="checkbox"/>	F Wind

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

Suggest **one** way this transport method is contributing to more sustainable energy use.

(2)

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(c) (i) State **one** factor that can affect the location of secondary industry.

(1)

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(ii) Explain **two** reasons why developed countries have a declining secondary sector.

(4)

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(d) Study Figure 1b below. It shows changes in primary sector employment for selected countries.

(i) Label, with an X in the box, the country that has primary sector employment between 30–40% in 1991.

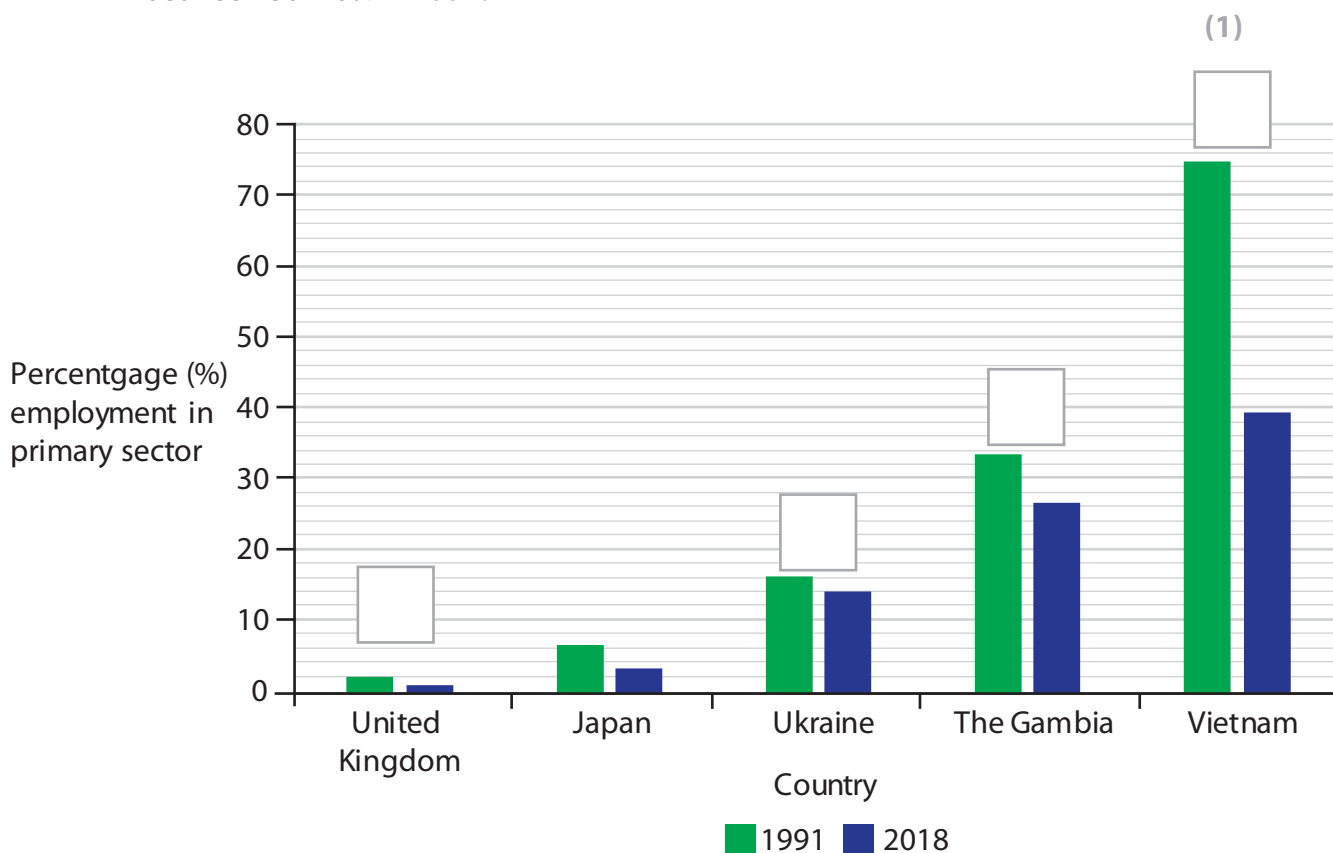


Figure 1b

Percentage (%) of people in primary sector employment for selected countries, 1991 and 2018

(ii) State which country has experienced the greatest change in primary sector employment.

(1)

<input type="checkbox"/>	A The Gambia
<input type="checkbox"/>	B Japan
<input type="checkbox"/>	C Ukraine
<input type="checkbox"/>	D Vietnam



(iii) State **one** factor that can cause a decline in primary sector employment.

(1)

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(e) For a named megacity explain **two** disadvantages of informal employment.

(4)

Named megacity

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2
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(f) Study Figure 1c in the Resource Booklet.

Analyse the reasons why energy production has changed.

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

(1)

(ii) Identify **two** services provided by natural ecosystems.

(2)

<input type="checkbox"/>	A Emission of oxygen
<input type="checkbox"/>	B Food
<input type="checkbox"/>	C Fuelwood
<input type="checkbox"/>	D Recycling of nutrients
<input type="checkbox"/>	E Timber for building
<input type="checkbox"/>	F Water

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

(i) Suggest **one** way this rural landscape has been changed.

(2)

(ii) Identify **one** other way rural areas in developed countries are changing.

(1)

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(d) Study Figure 2b below. It shows population pyramids for urban and rural populations in the USA in 1980 and 2015.

(i) Label, with an X in the box, the age group with an urban population of between 10 and 15 million.

(1)

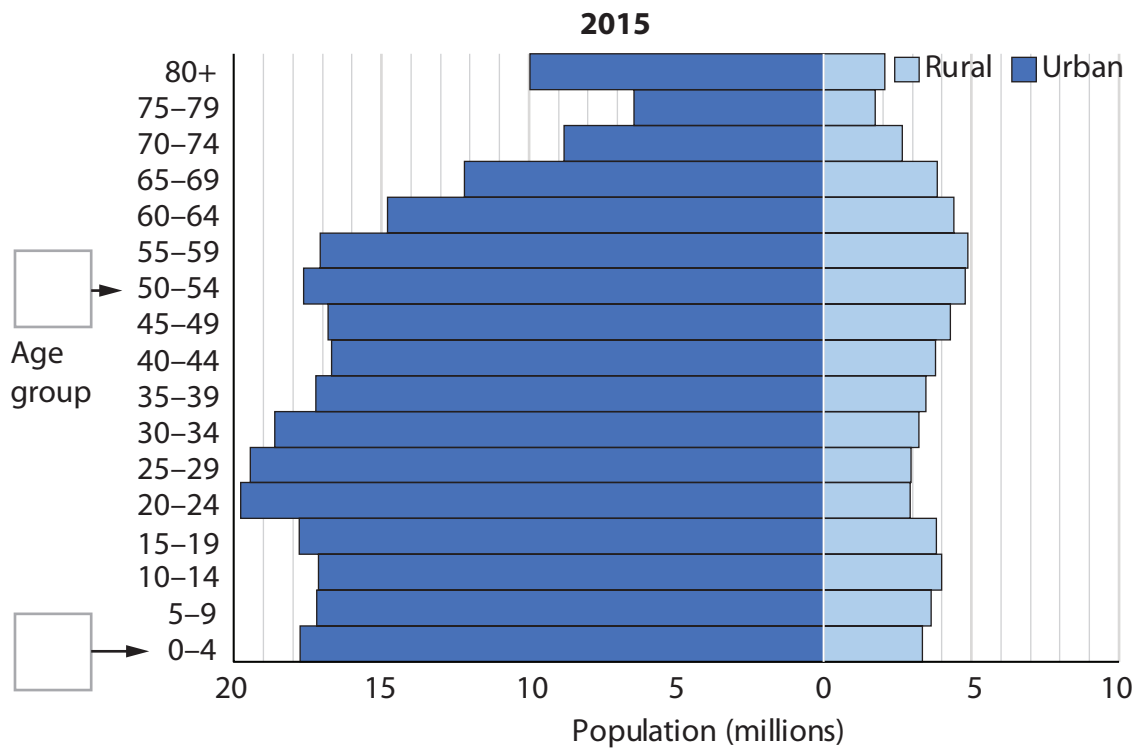
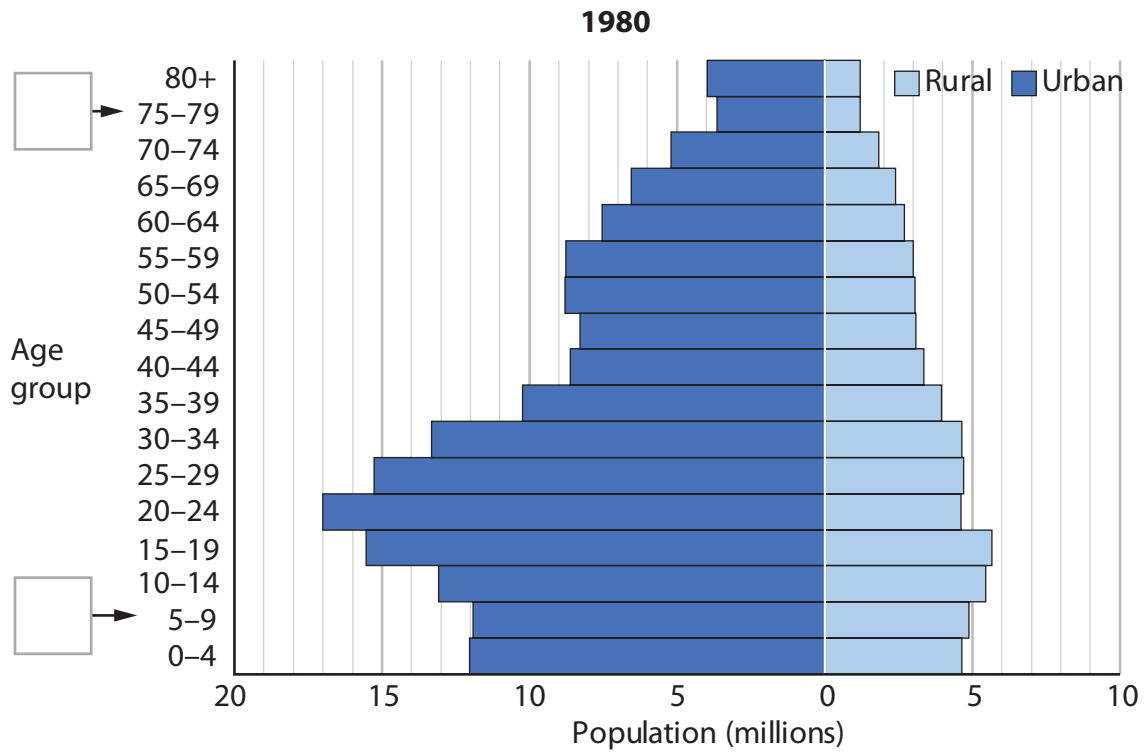


Figure 2b
Urban and rural populations in the USA in 1980 and 2015



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(ii) Identify the largest population age group in 2015.

(1)

<input type="checkbox"/>	A 0–4 Urban
<input type="checkbox"/>	B 20–24 Urban
<input type="checkbox"/>	C 35–39 Rural
<input type="checkbox"/>	D 60–64 Rural

(iii) State **one** reason for counter-urbanisation.

(1)

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(e) For a named developing or emerging country, explain **two** strategies used to improve quality of life in rural areas.

(4)

Named developing or emerging country

1

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

Analyse the impact of humans on the rural landscape.

(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) Define the term **suburbanisation**.

(1)

(ii) Identify **two** problems associated with rapid urban growth.

(2)

<input type="checkbox"/>	A Increased traffic congestion
<input type="checkbox"/>	B Increased availability of transport routes
<input type="checkbox"/>	C Increased pesticide use
<input type="checkbox"/>	D Reduced access to health services
<input type="checkbox"/>	E Reduced leisure facilities
<input type="checkbox"/>	F Reduced air pollution

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

(i) Suggest **one** reason why this area is likely to be part of a rural-urban fringe.

(2)

(ii) Identify the meaning of the term **brownfield site**.

(1)

<input type="checkbox"/>	A Rural land allocated specifically for a new development.
<input type="checkbox"/>	B Land that has been previously used for industrial or commercial purposes, abandoned and now waits new use.
<input type="checkbox"/>	C Urban park land that has been designated for industrial or commercial purposes.
<input type="checkbox"/>	D Land that has never been used and awaits new use for industrial or commercial purposes.

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(d) Study Figure 3b below.

(i) Label, with an X in the box, the city with the PM10 (particulate matter) levels between 50 and 100 $\mu\text{g}/\text{m}^3$.

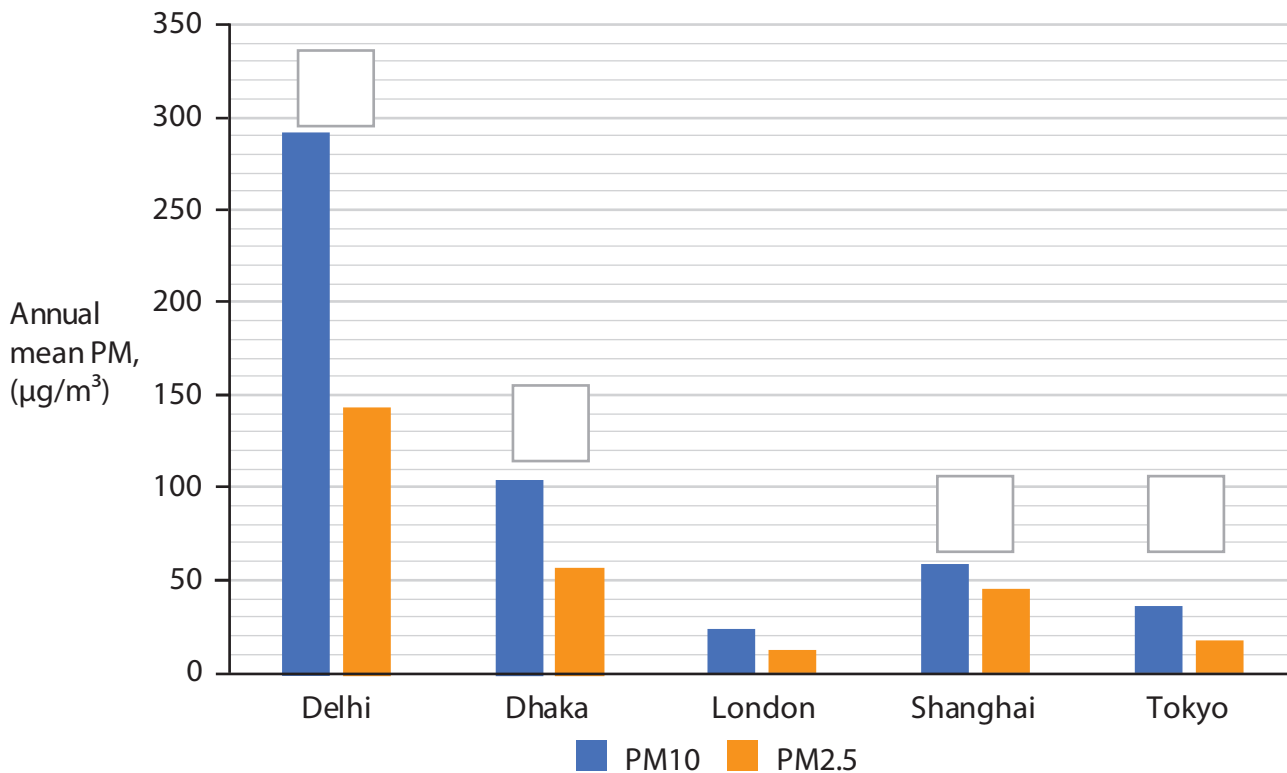


Figure 3b

Air pollution (particulate matter – PM) in selected cities, 2016

(1)

(ii) Identify the city that has the greatest difference between PM10 and PM2.5 levels.

(1)

<input type="checkbox"/>	A Delhi
<input type="checkbox"/>	B Dhaka
<input type="checkbox"/>	C London
<input type="checkbox"/>	D Shanghai

(iii) State **one** cause of air pollution in urban areas.

(1)

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(e) For a named developing or emerging country, explain **two** strategies used to improve quality of life in an urban area.

(4)

Named developing or emerging country

Strategy 1

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Strategy 2

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

Analyse the factors that affect the growth of megacities.

(8)

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(Total for Question 3 = 25 marks)

TOTAL FOR SECTION A = 50 MARKS



SECTION B

Geographical Enquiry

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 4 put a cross in the box ☒ .

4 Investigating economic activity and energy

(a) Study Figure 4a in the Resource Booklet.

(i) Identify **one** type of qualitative data collection in this enquiry.

(1)

(ii) Explain **one** type of sampling method chosen by the student.

(2)

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(b) Study Figure 4b in the Resource Booklet. It shows results from a questionnaire carried out as part of a student's geographical enquiry.

- (i) Plot the data for the questionnaire for **Question 2** (Figure 4b in the Resource Booklet) to complete Figure 4c below.

(2)

Some data has been plotted for you as an example.

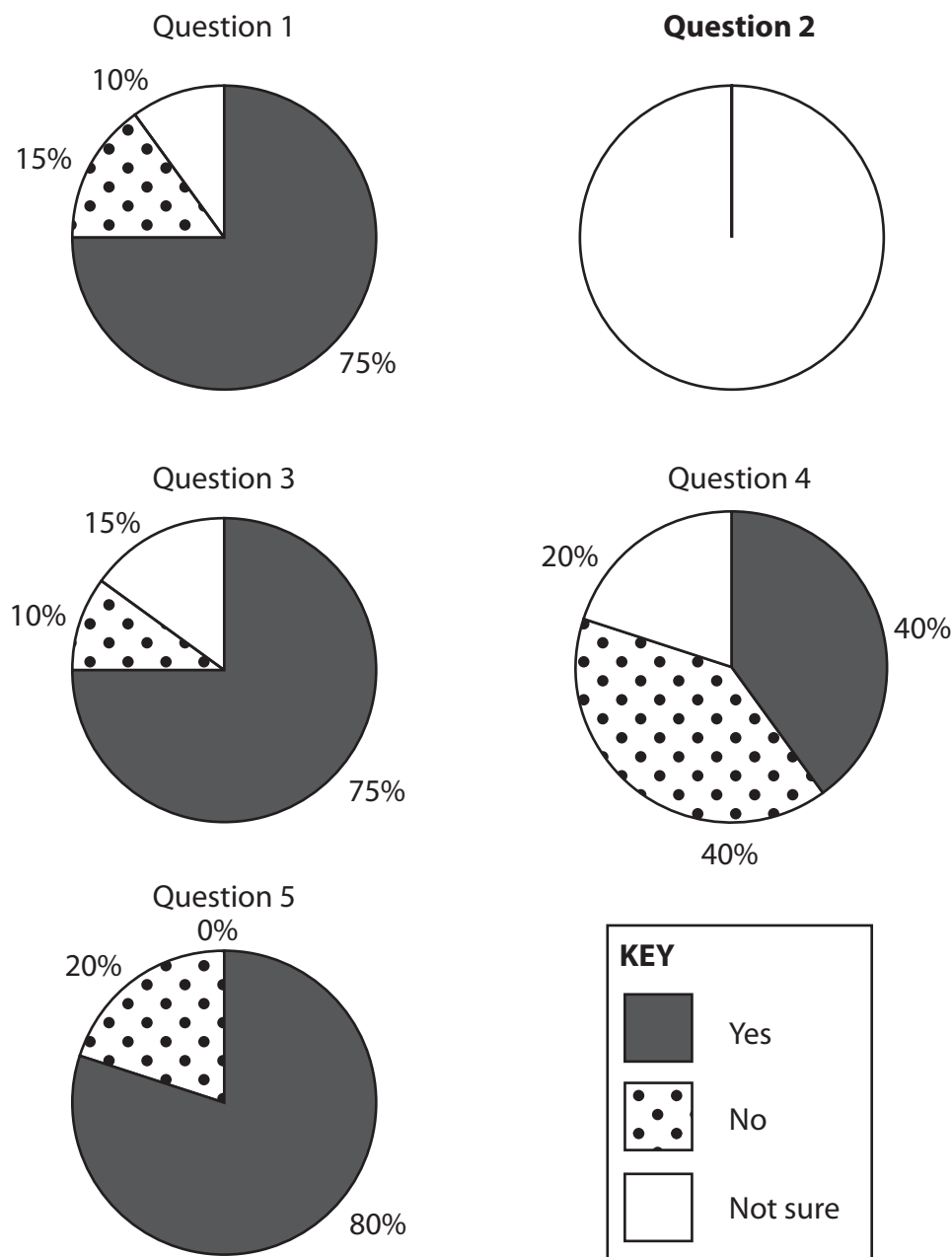


Figure 4c

Results from a questionnaire presented in pie charts



(ii) Identify **one** advantage of using a questionnaire.

(1)

<input type="checkbox"/>	A An expensive data collection method compared to other methods.
<input type="checkbox"/>	B Guarantees responses from people.
<input type="checkbox"/>	C Potential to generate a mixture of qualitative and quantitative data.
<input type="checkbox"/>	D Provides data about everything you need to know.

(iii) Identify the correct statement below.

(1)

<input type="checkbox"/>	A The mean percentage for people who answered 'not sure' was 1.
<input type="checkbox"/>	B The mean percentage for people who answered 'not sure' was 11.
<input type="checkbox"/>	C The mean percentage for people who answered 'not sure' was 21.
<input type="checkbox"/>	D The mean percentage for people who answered 'not sure' was 31.

(iv) Suggest **one** way the data collection for this enquiry could be improved.

(2)

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(c) Suggest **one** advantage of using secondary data as part of this enquiry.

(3)

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(Total for Question 4 = 12 marks)



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

5 Investigation rural environments

(a) Study Figure 5a in the Resource Booklet.

(i) Identify **one** type of qualitative data collection in this enquiry.

(1)

(ii) Explain **one** type of sampling method chosen by the student.

(2)

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(b) Study Figure 5b in the Resource Booklet. It shows results from a questionnaire carried out as part of a student's geographical enquiry.

- (i) Plot the data for the questionnaire for **Question 2** (Figure 5b in the Resource Booklet) to complete Figure 5c below.

(2)

Some data has been plotted for you as an example.

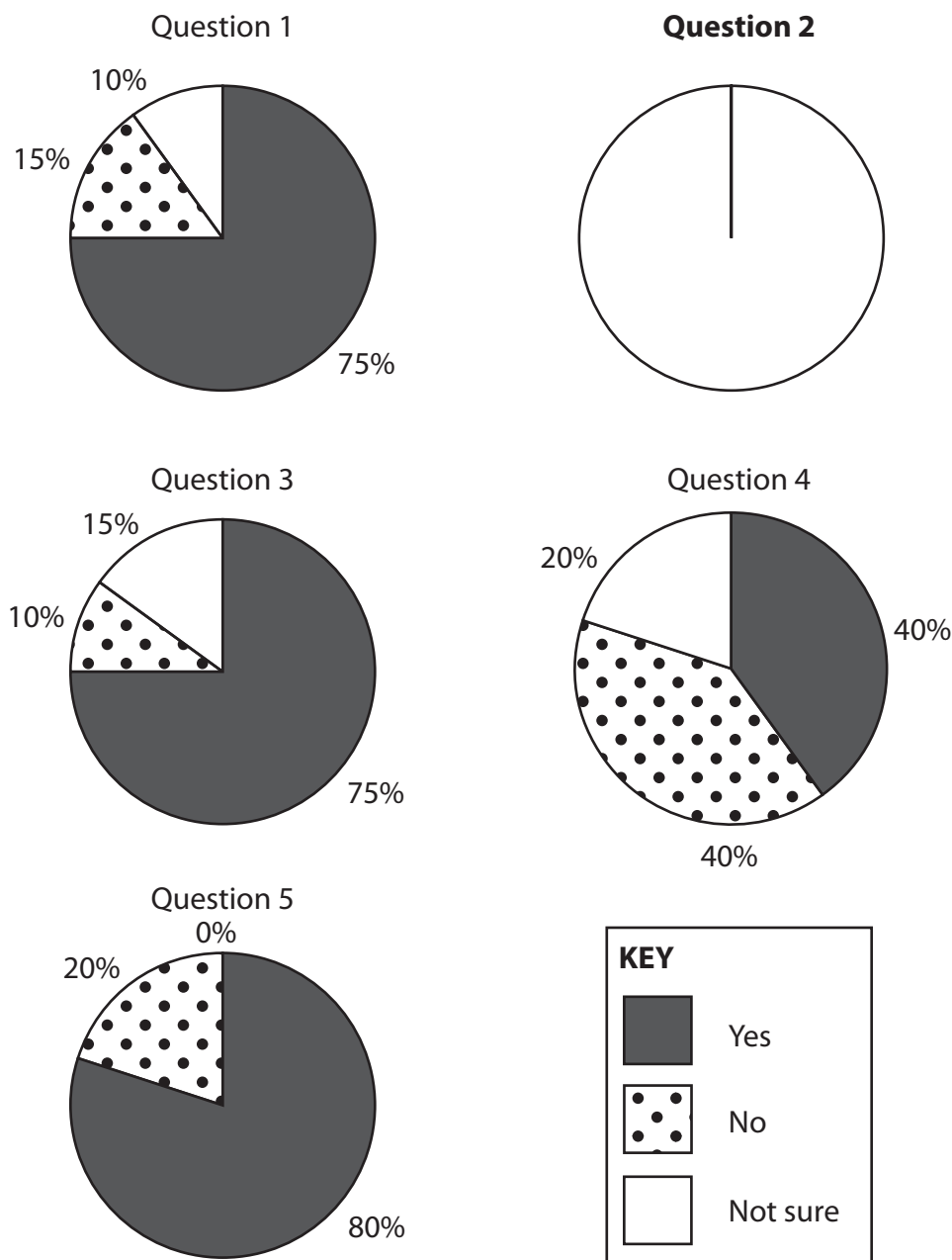


Figure 5c

Results from a questionnaire displayed in pie charts



(ii) Identify **one** advantage of using a questionnaire.

(1)

<input type="checkbox"/>	A An expensive data collection method compared to other methods.
<input type="checkbox"/>	B Guarantees responses from people.
<input type="checkbox"/>	C Potential to generate a mixture of qualitative and quantitative data.
<input type="checkbox"/>	D Provides data about everything you need to know.

(iii) Identify the correct statement below.

(1)

<input type="checkbox"/>	A The mean percentage for people who answered 'not sure' was 1.
<input type="checkbox"/>	B The mean percentage for people who answered 'not sure' was 11.
<input type="checkbox"/>	C The mean percentage for people who answered 'not sure' was 21.
<input type="checkbox"/>	D The mean percentage for people who answered 'not sure' was 31.

(iv) Suggest **one** way the data collection for this enquiry could be improved.

(2)

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(c) Suggest **one** advantage of using secondary data as part of this enquiry.

(3)

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(Total for Question 5 = 12 marks)



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

6 Investigating urban environments

(a) Study Figure 6a in the Resource Booklet.

(i) Identify **one** type of qualitative data collection in this enquiry.

(1)

(ii) Explain **one** type of sampling method chosen by the student.

(2)

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(b) Study Figure 6b in the Resource Booklet. It shows results from a questionnaire carried out as part of a student's geographical enquiry.

- (i) Plot the data for the questionnaire for **Question 2** (Figure 6b in the Resource Booklet) to complete Figure 6c below.

(2)

Some data has been plotted for you as an example.

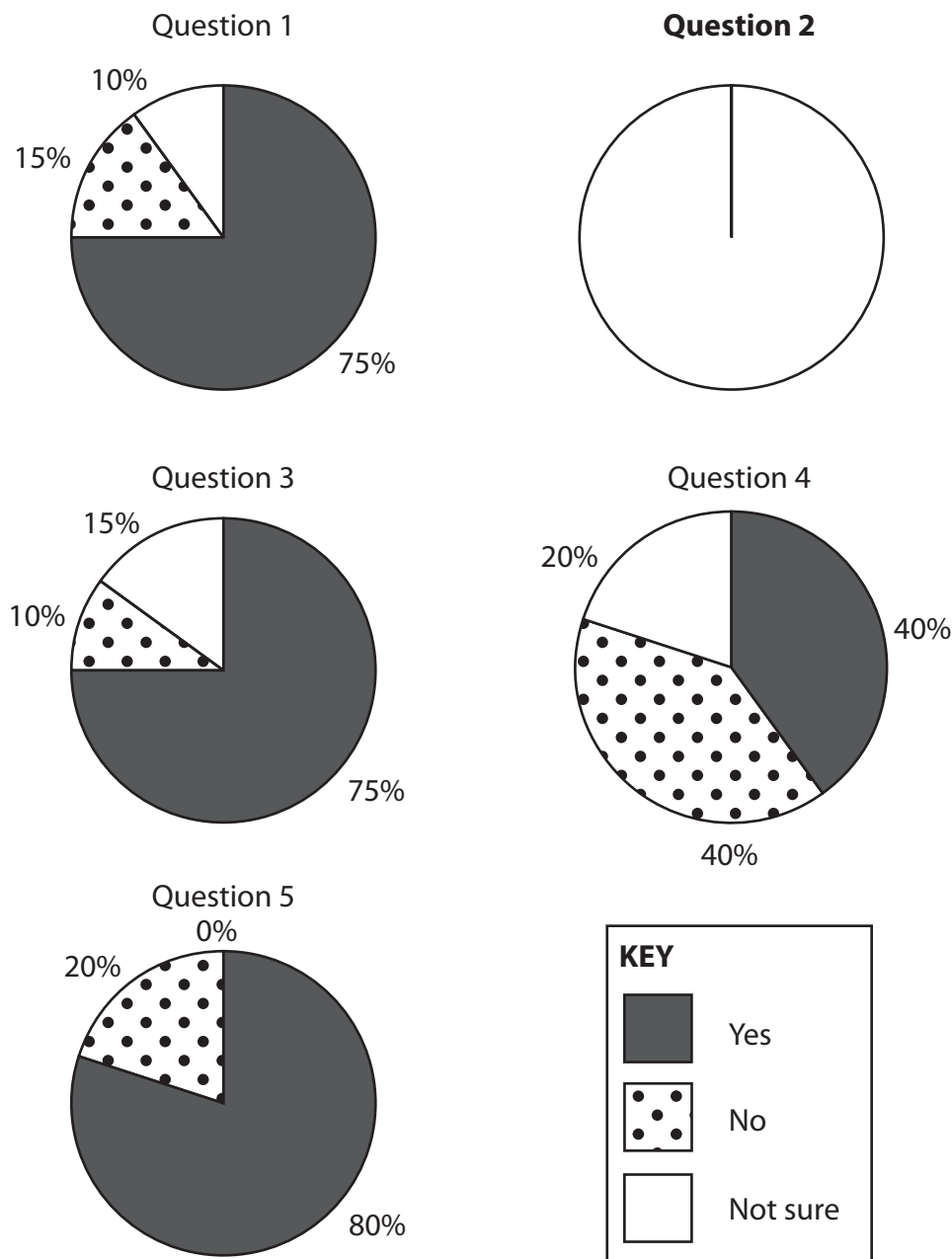


Figure 6c

Results from a questionnaire displayed in pie charts



(ii) Identify **one** advantage of using a questionnaire.

(1)

<input type="checkbox"/>	A An expensive data collection method compared to other methods.
<input type="checkbox"/>	B Guarantees responses from people.
<input type="checkbox"/>	C Potential to generate a mixture of qualitative and quantitative data.
<input type="checkbox"/>	D Provides data about everything you need to know.

(iii) Identify the correct statement below.

(1)

<input type="checkbox"/>	A The mean percentage for people who answered 'not sure' was 1.
<input type="checkbox"/>	B The mean percentage for people who answered 'not sure' was 11.
<input type="checkbox"/>	C The mean percentage for people who answered 'not sure' was 21.
<input type="checkbox"/>	D The mean percentage for people who answered 'not sure' was 31.

(iv) Suggest **one** way the data collection for this enquiry could be improved.

(2)

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(c) Explain **one** advantage of using secondary data as part of this enquiry.

(3)

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(Total for Question 6 = 12 marks)

TOTAL FOR SECTION B = 12 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 the meaning of the term **drought**.

(1)

<input type="checkbox"/>	A A period of time with abnormally low rainfall.
<input type="checkbox"/>	B A period of time with high rainfall.
<input type="checkbox"/>	C A period of time with high temperatures.
<input type="checkbox"/>	D A period of time with abnormally low humidity.

(ii) Define the term **desertification**.

(2)

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(iii) Identify **one** method to manage the impacts of desertification.

(1)

<input type="checkbox"/>	A Removing trees in affected areas
<input type="checkbox"/>	B Install solar panels
<input type="checkbox"/>	C Install water storage devices
<input type="checkbox"/>	D Increase cattle farming

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

(i) Identify a decade where global temperature variation goes above zero.

(1)

.....



(ii) Compare the patterns of CO₂ and global temperature variation.

(2)

(iii) Identify **two** reasons for the increased CO₂ emissions.

(2)

1

2

(iv) Suggest **one** reason why the data may not show global climate change accurately.

(2)

(c) State **two** characteristics of a rainforest.

(2)

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2

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(d) Explain **two** different ways rainforests can be managed in a named region.

(4)

Named region

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

Assess the potential variation in economic impact from predicted sea level rise.

(6)

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(f) Discuss the view:

'Global sea level rise presents the greatest threat from global climate change.'

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

(12)

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(Total for Question 7 = 35 marks)



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

8 Globalisation and migration

- (a) (i) Identify the meaning of the term **sustainable tourism**. (1)

<input type="checkbox"/>	A Tourism that uses all its money for conservation.
<input type="checkbox"/>	B Tourism that only uses renewable energy sources.
<input type="checkbox"/>	C Tourism that prioritises trips to fragile environments.
<input type="checkbox"/>	D Tourism that considers its economic, social and environmental impacts.

- (ii) State **two** negative impacts of mass tourism. (2)

1

2

- (iii) Identify **one** reason for the growth in global tourism. (1)

<input type="checkbox"/>	A Improved facilities at airports
<input type="checkbox"/>	B More public holidays
<input type="checkbox"/>	C Increased disposable income
<input type="checkbox"/>	D Rapid industrialisation

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

- (i) Identify the decade when exports were higher overall than imports. (1)

- (ii) Compare the patterns of imports and exports. (2)

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(iii) Suggest **one** reason why exports were higher than imports in some years. (2)

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(iv) Suggest **one** reason why the data in Figure 8a is a good indicator of increased globalisation. (2)

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(c) State **two** ways technology has encouraged the growth of the global economy. (2)

1

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(d) Explain **two** costs to countries hosting transnational corporations (TNCs).

(4)

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

Assess the impacts of the international migration on donor countries.

(6)

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(f) Discuss the view:

'The global economy is more affected by migration than trade!'

Use Figures 8b and 8c in the Resource Booklet, and your own knowledge and understanding, to support 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 quality of life indicator.

(1)

<input type="checkbox"/>	A Percentage of GDP spent on transport
<input type="checkbox"/>	B Percentage of GDP spent on importing energy
<input type="checkbox"/>	C Percentage of GDP spent on education
<input type="checkbox"/>	D Percentage of GDP spent on international aid

(ii) Explain what is meant by the term **infant mortality rate**.

(2)

(iii) Identify **one** component of the Human Development Index.

(1)

<input type="checkbox"/>	A Percentage employed in agriculture
<input type="checkbox"/>	B Life expectancy
<input type="checkbox"/>	C Amount of GDP from remittances
<input type="checkbox"/>	D Percentage of people getting married

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

(i) Identify the year when the birth rate in Bangladesh first fell below 40 per 1,000 people.

(1)

(ii) Compare the change in birth rate and death rate in Bangladesh.

(2)

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(iii) Suggest **one** reason for the falling birth rate in developing countries, such as Bangladesh.

(2)

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(iv) Suggest **one** reason why the data in Figure 9a may indicate the level of a country's development.

(2)

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(c) State **two** international strategies that attempt to reduce uneven development.

(2)

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(d) Explain **two** advantages of bottom up development projects in a named developing or emerging country.

(4)

Named developing or emerging country

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

Assess the importance of food security to global patterns of economic development.

(6)

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(f) Discuss the view:

'Economic indicators are the most useful for measuring development!'

Use Figures 9b 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 = 97 MARKS



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Pearson Edexcel International GCSE (9–1)

Time 1 hour 45 minutes

**Paper
reference**

4GE1/02

Geography

PAPER 2: Human Geography

Resource Booklet

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Turn over ►

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Figure 1a
Photograph of an electric bus

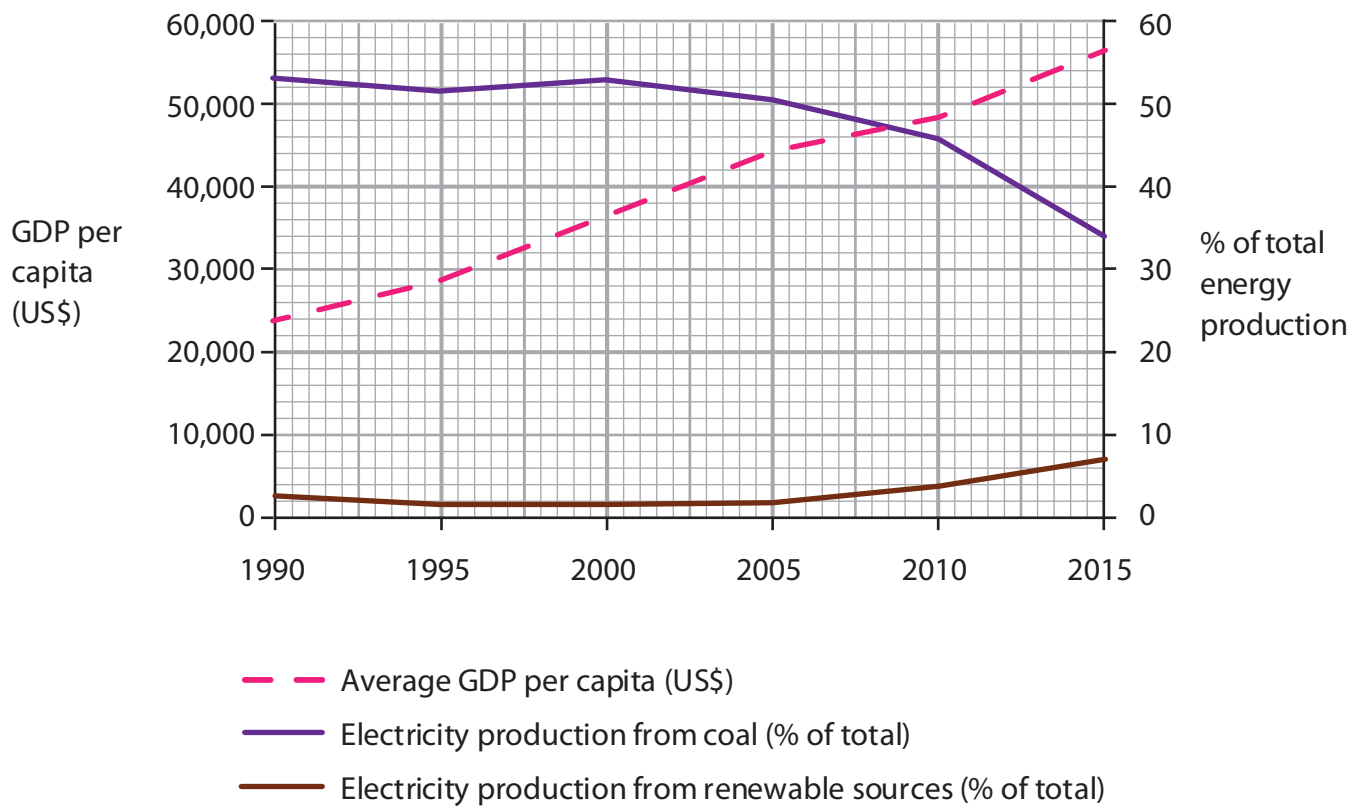


Figure 1c
Global average Gross Domestic Product (GDP) per capita, electricity production from coal and renewable sources, 1990–2015



Figure 2a

Photograph of a visitor centre in a rural area

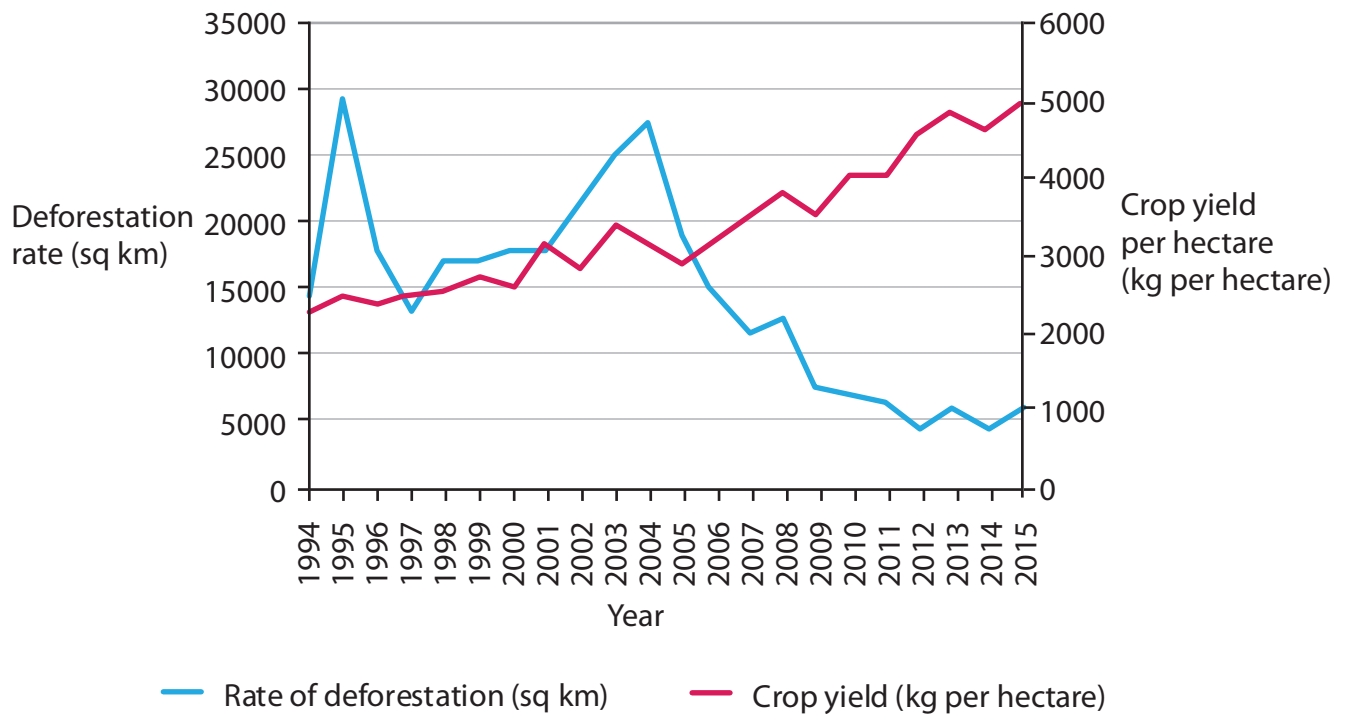


Figure 2c
Rates of deforestation and crop yields in Brazil, 1994–2015



Figure 3a

Photograph of a UK landscape

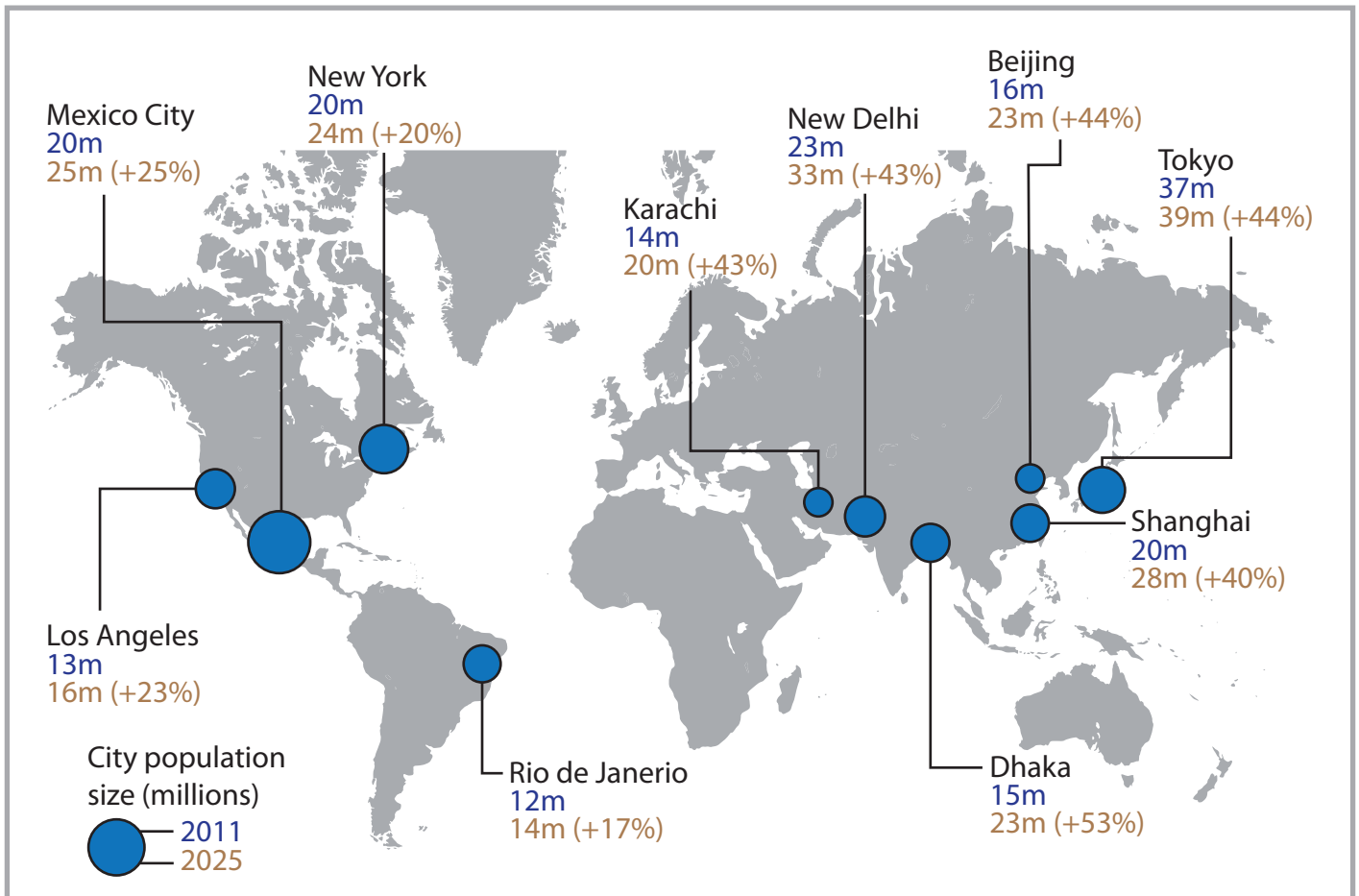


Figure 3c

Global map of predicted population growth in selected megacities

Method	Purpose	Details
Secondary data from websites and newspapers	To provide background information on the study site.	Conduct web search using Google and Google Scholar for selected key words.
Photographs/Field sketches	To provide a visual record of the different parts of the enquiry site.	Take photos and field sketches where possible.
Environmental Quality Survey	To provide an understanding of how environmental quality varies across the site.	To be conducted at five sites at regular intervals along a road.
Questionnaire	To understand different views of the developments taking place.	Complete 10 questionnaires. Two at each site.

Figure 4a

An extract from a student's methodology

	Yes (%)	No (%)	Not sure (%)
Question 1: Did you think this area needs to be improved?	75	15	10
Question 2: Do you think the developments have improved the area?	50	40	10
Question 3: Do you think further improvements need to be made?	75	10	15
Question 4: Do you think local government should be responsible for leading the development of this area?	40	40	20
Question 5: Are you local to this area?	80	20	0

Figure 4b

Extract from a student's questionnaire

Method	Purpose	Details
Secondary data from websites and newspapers	To provide background information on the study site.	Conduct web search using Google and Google Scholar for selected key words.
Photographs/Field sketches	To provide a visual record of the different parts of the enquiry site.	Take photos and field sketches where possible.
Environmental Quality Survey	To provide an understanding of how environmental quality varies across the site.	To be conducted at five sites at regular intervals along a road.
Questionnaire	To understand different views of the developments taking place.	Complete 10 questionnaires. Two at each site.

Figure 5a

An extract from a student's methodology

	Yes (%)	No (%)	Not sure (%)
Question 1: Did you think this area needs to be improved?	75	15	10
Question 2: Do you think the developments have improved the area?	50	40	10
Question 3: Do you think further improvements need to be made?	75	10	15
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Question 5: Are you local to this area?	80	20	0

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Extract from a student's questionnaire

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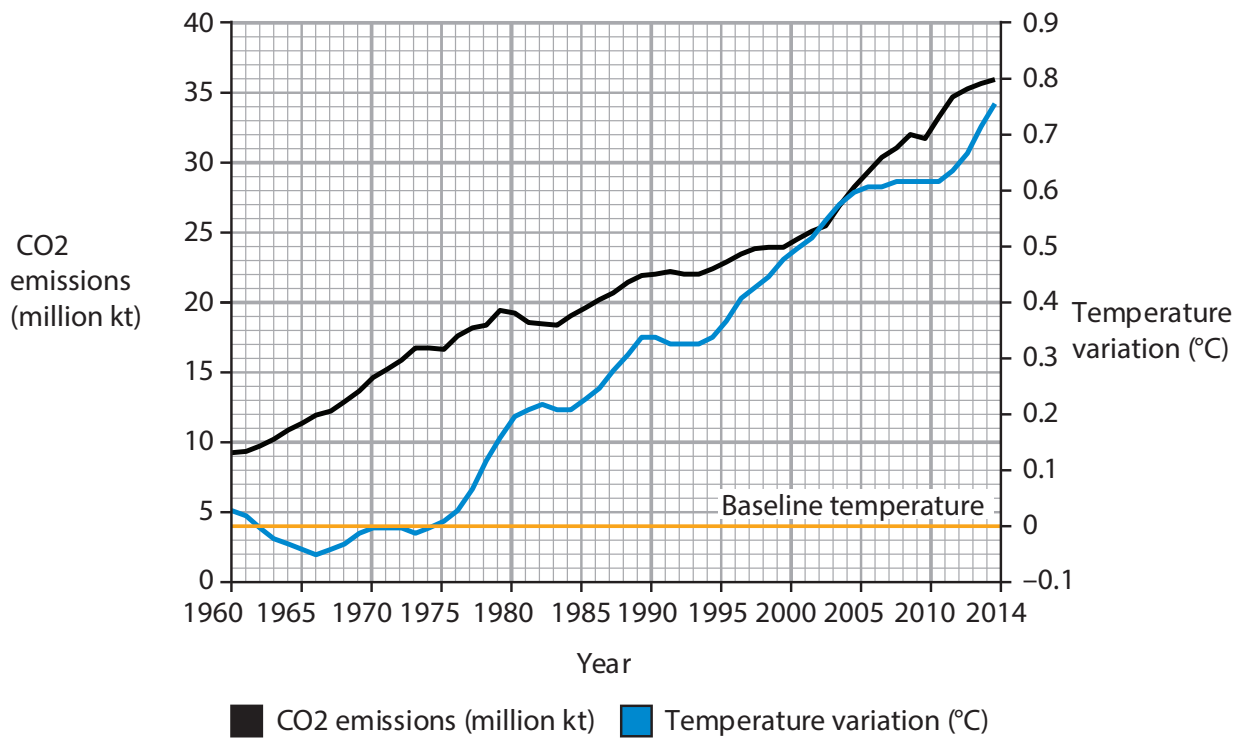


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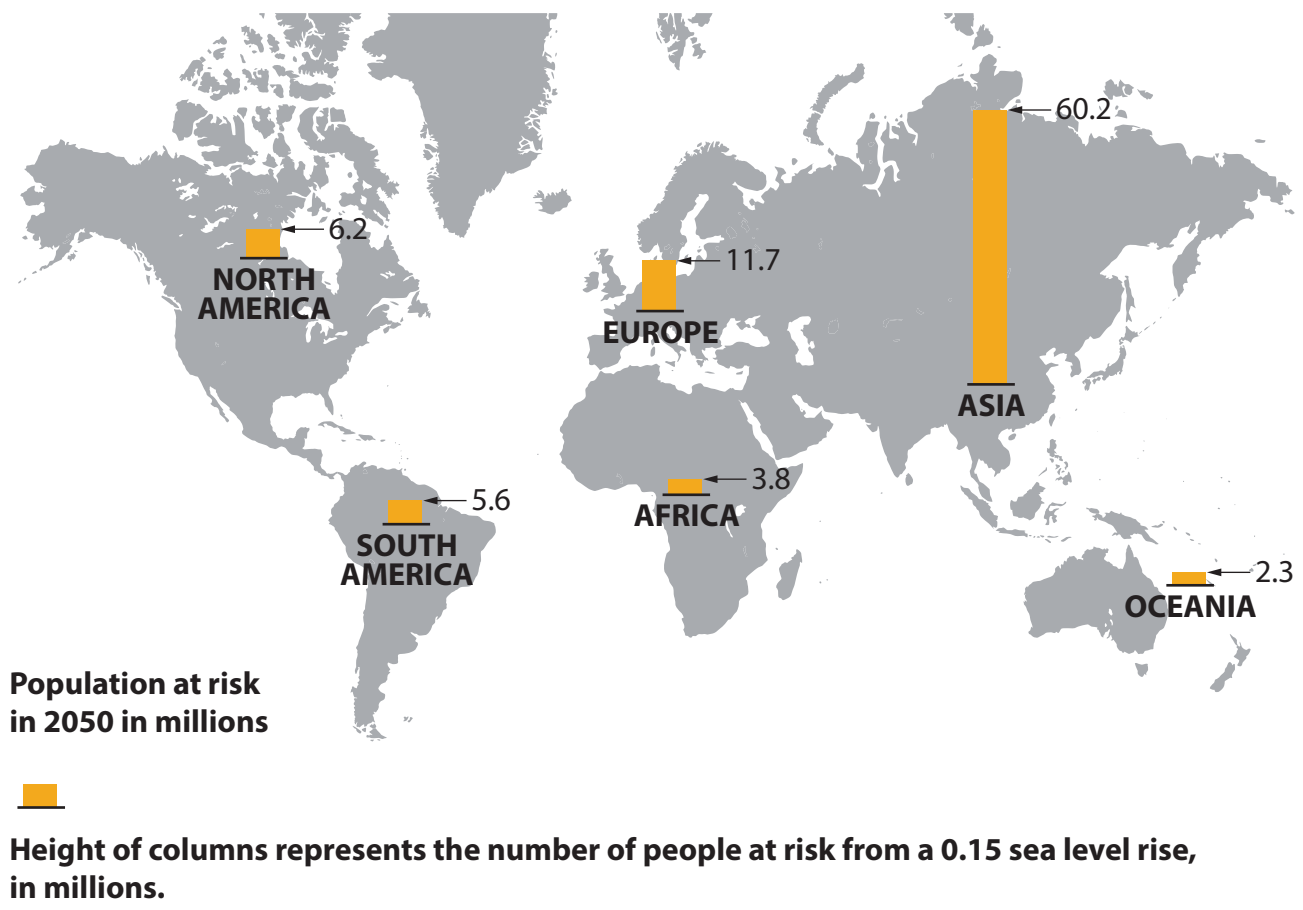


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Global map of populations at risk from 0.15m sea level rise due to climate change


Greatest threat  Least threat	Global sea level rise
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	Changing weather patterns
	Ecosystem changes
	Health challenges
	Changing pattern of food production

Figure 7c

Selected potential threats from global climate change

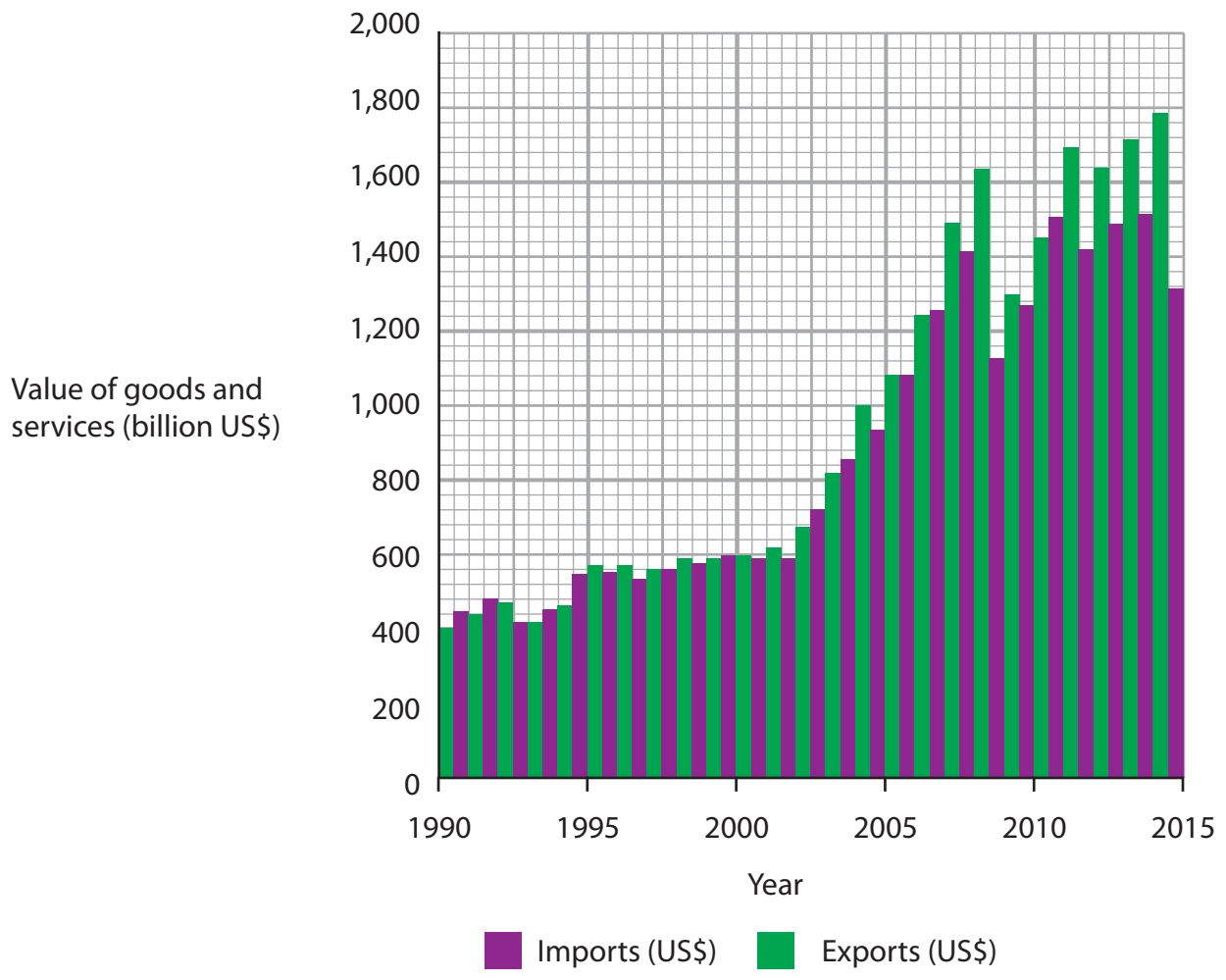


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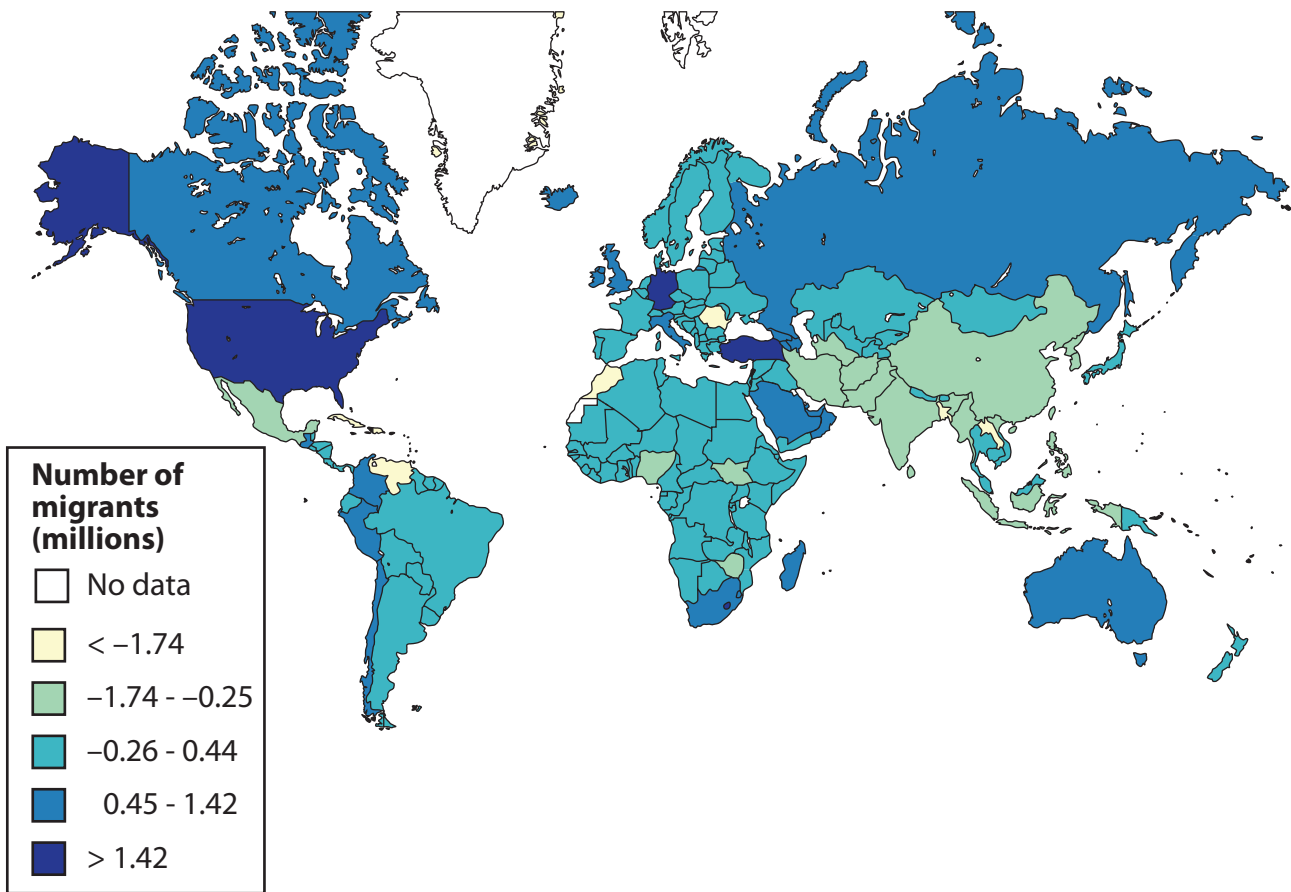


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Global map of net migration, 2017

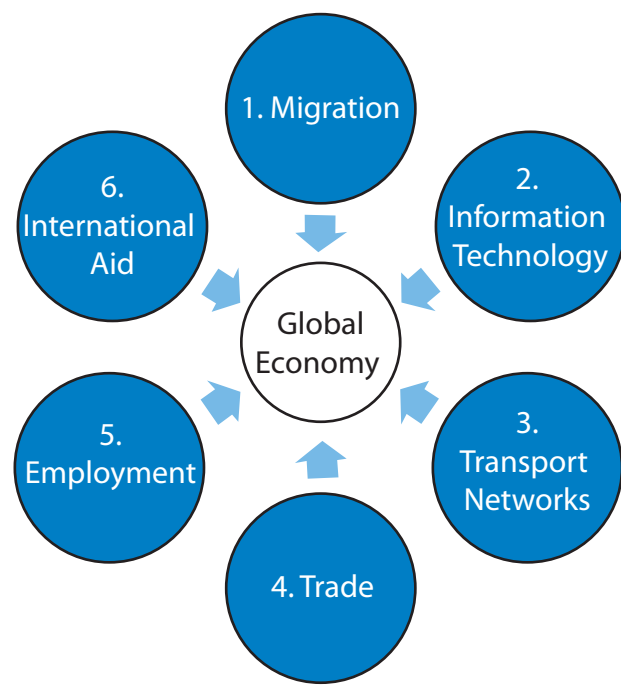


Figure 8c

Selected factors affecting the global economy in rank order

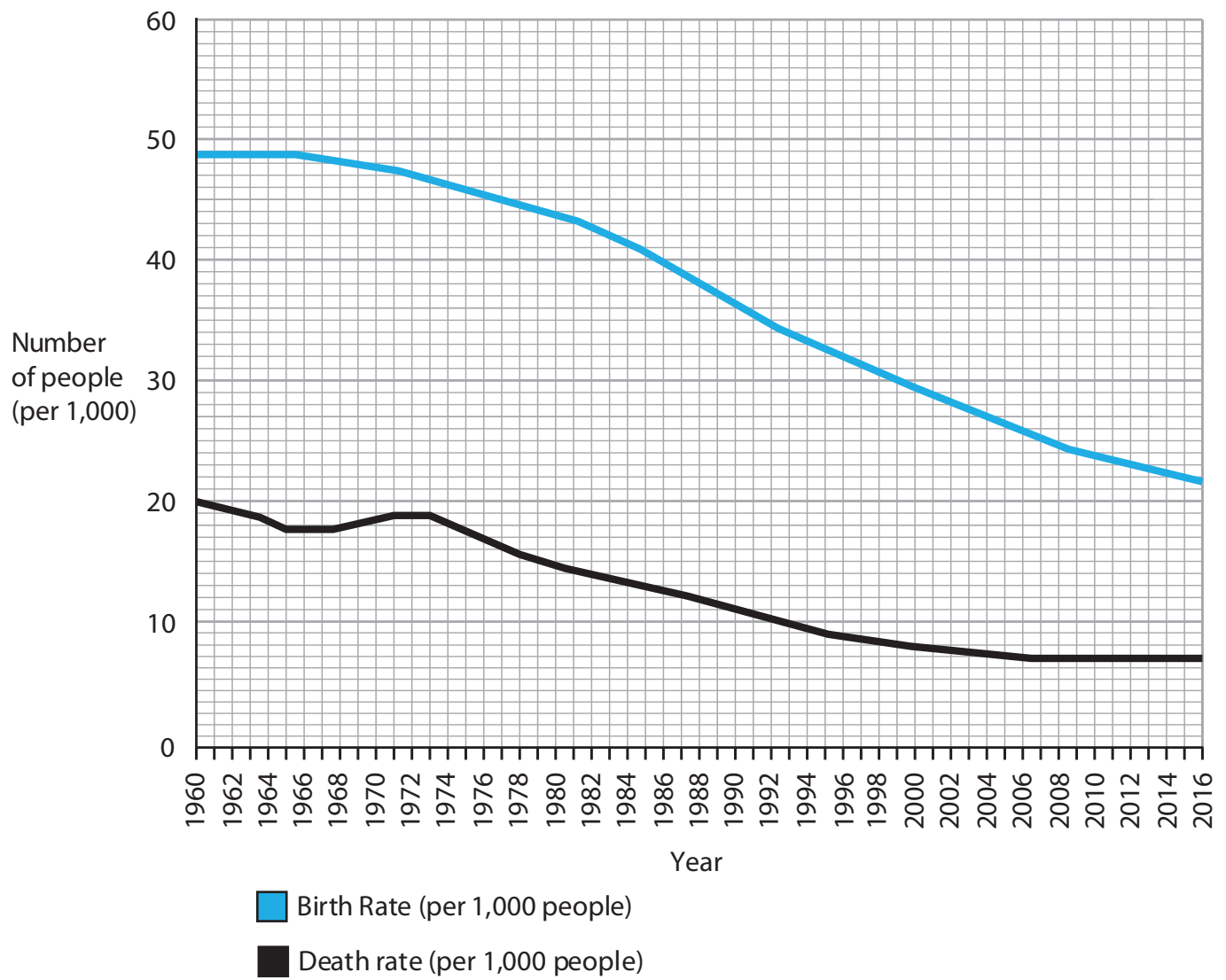


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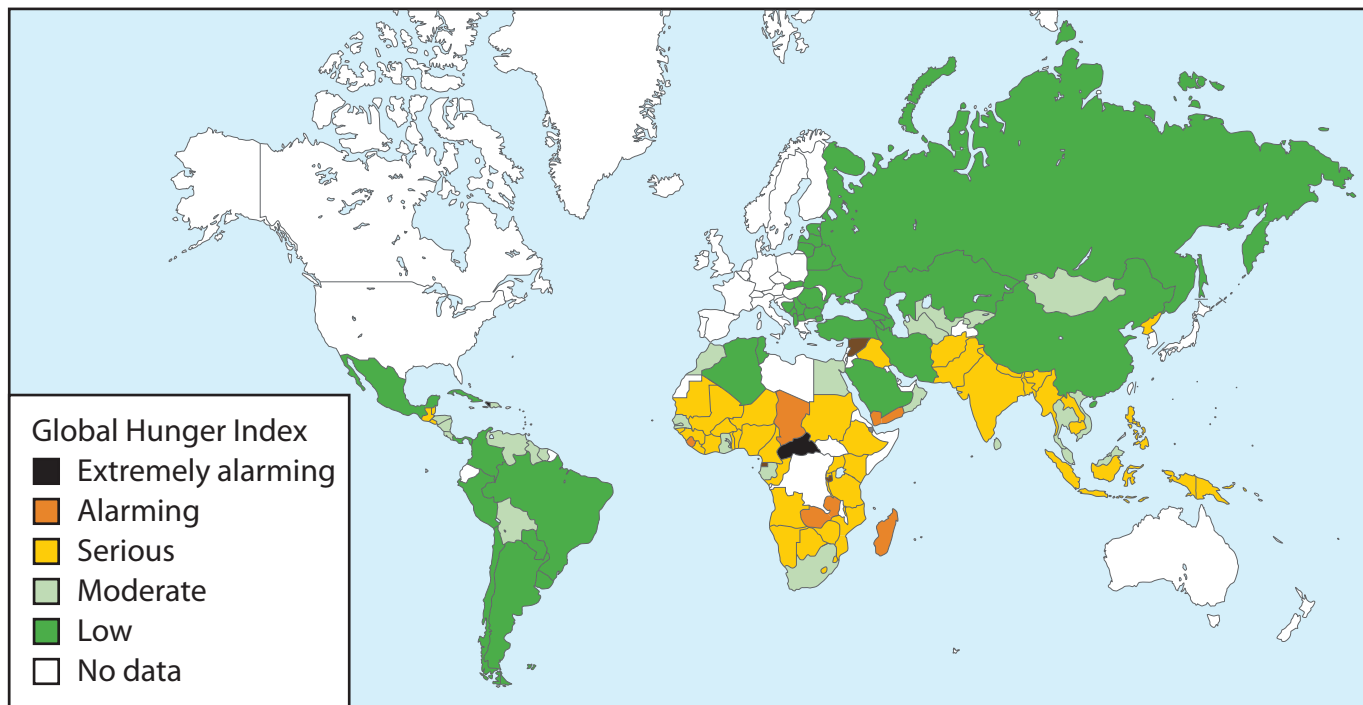


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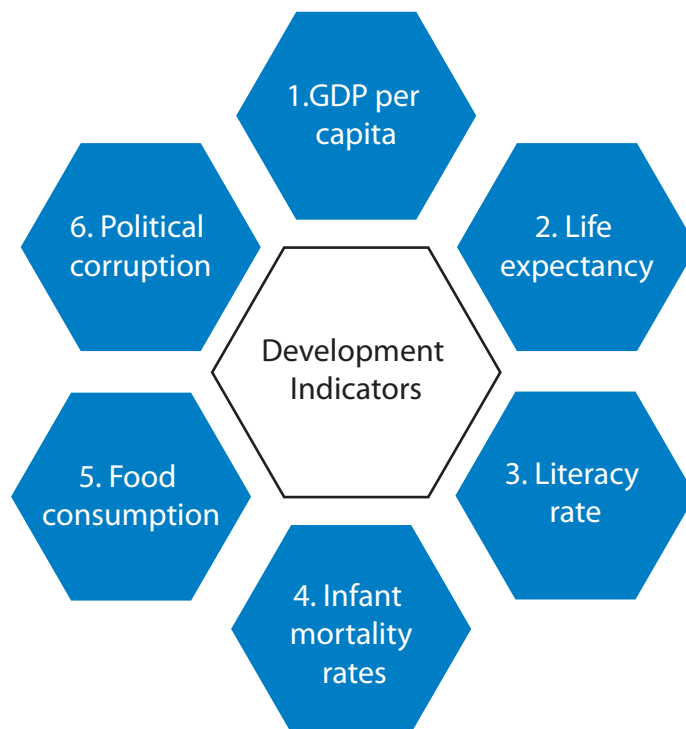


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Selected Development Indicators in rank order

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Figure 1a
Photograph of an electric bus

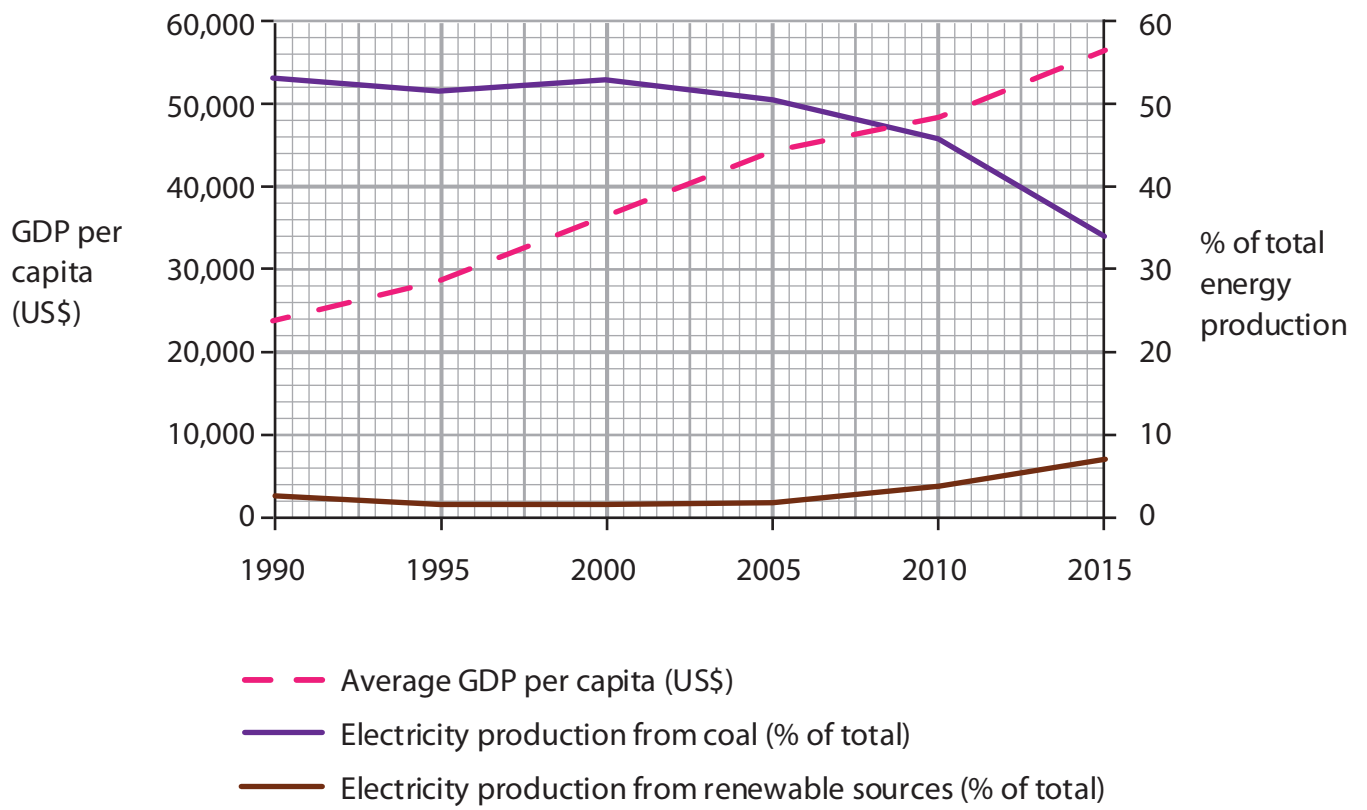


Figure 1c
Global average Gross Domestic Product (GDP) per capita, electricity production from coal and renewable sources, 1990–2015



Figure 2a

Photograph of a visitor centre in a rural area

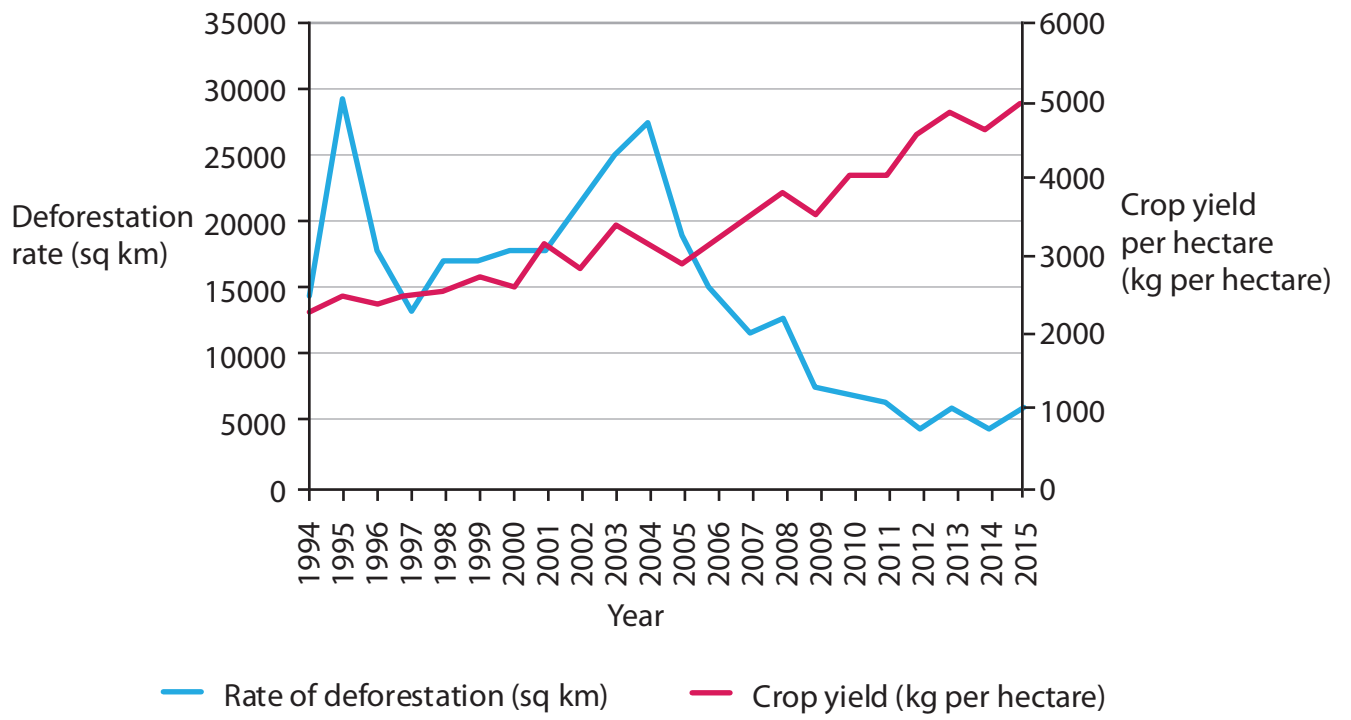


Figure 2c
Rates of deforestation and crop yields in Brazil, 1994–2015



Figure 3a

Photograph of a UK landscape

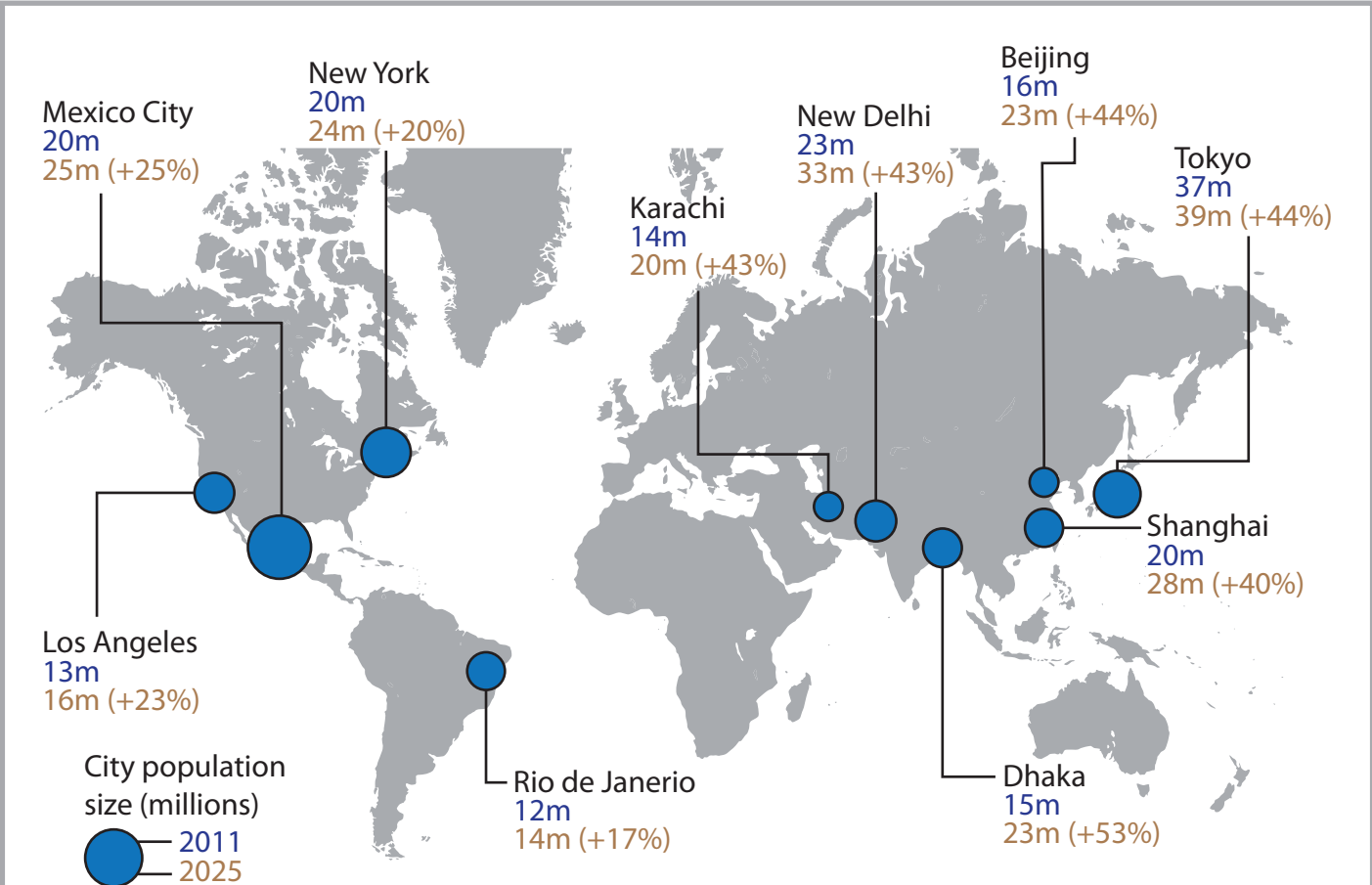


Figure 3c

Global map of predicted population growth in selected megacities

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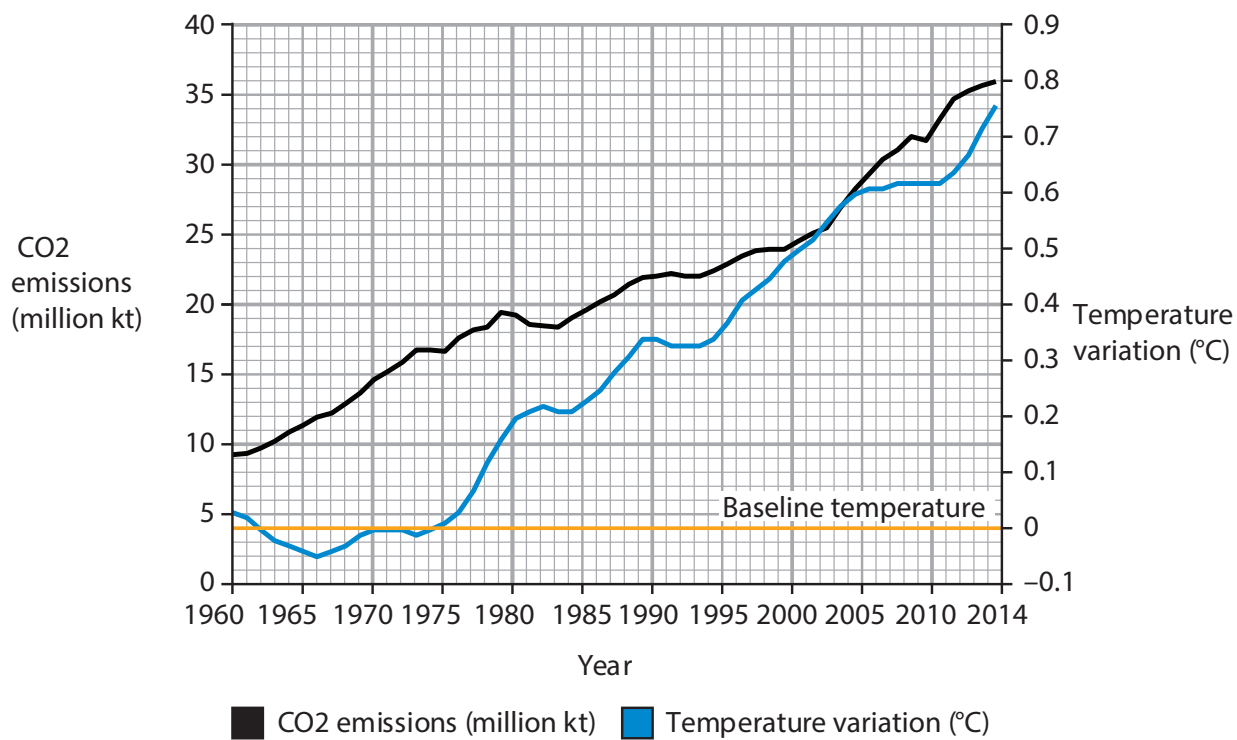


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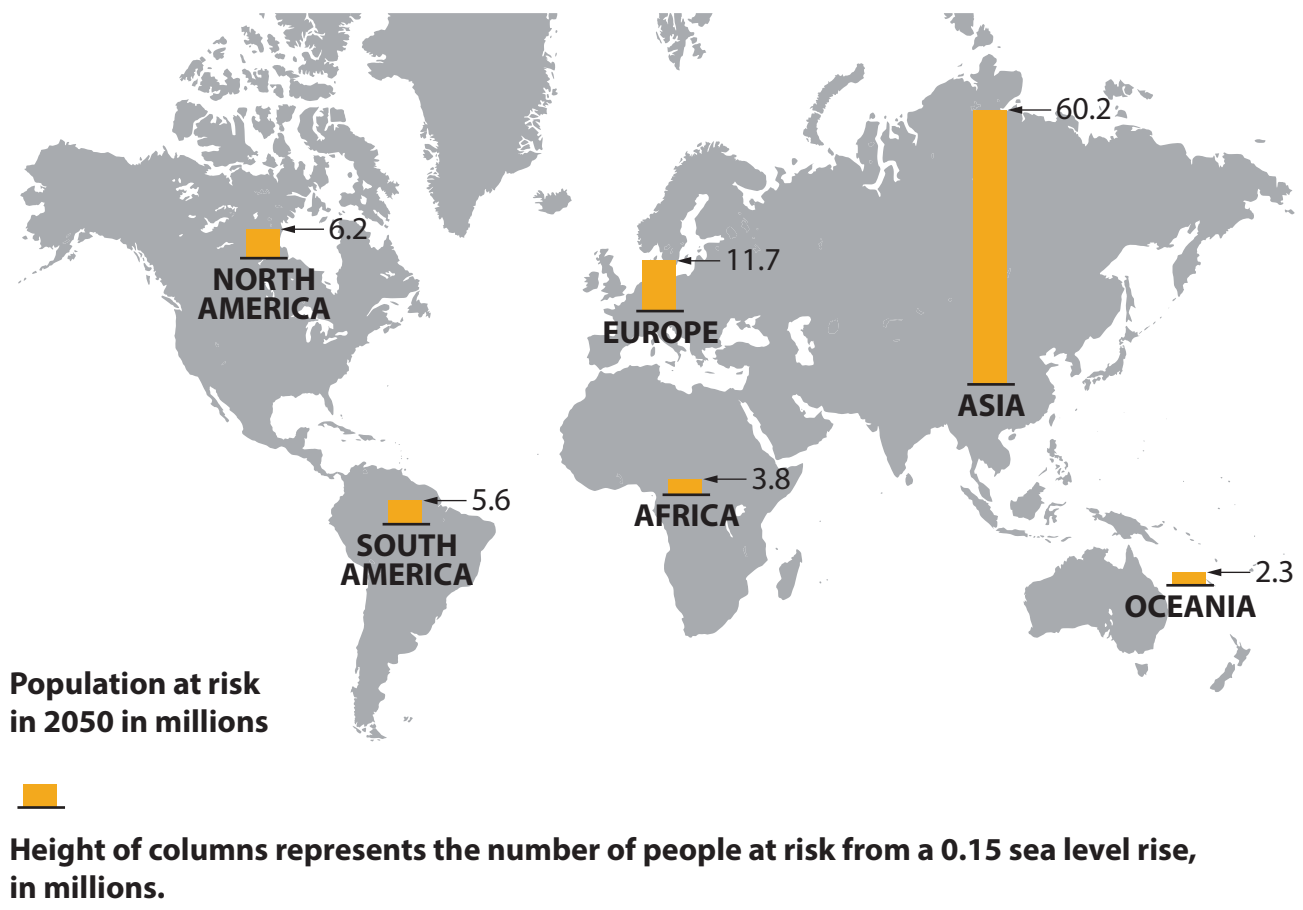


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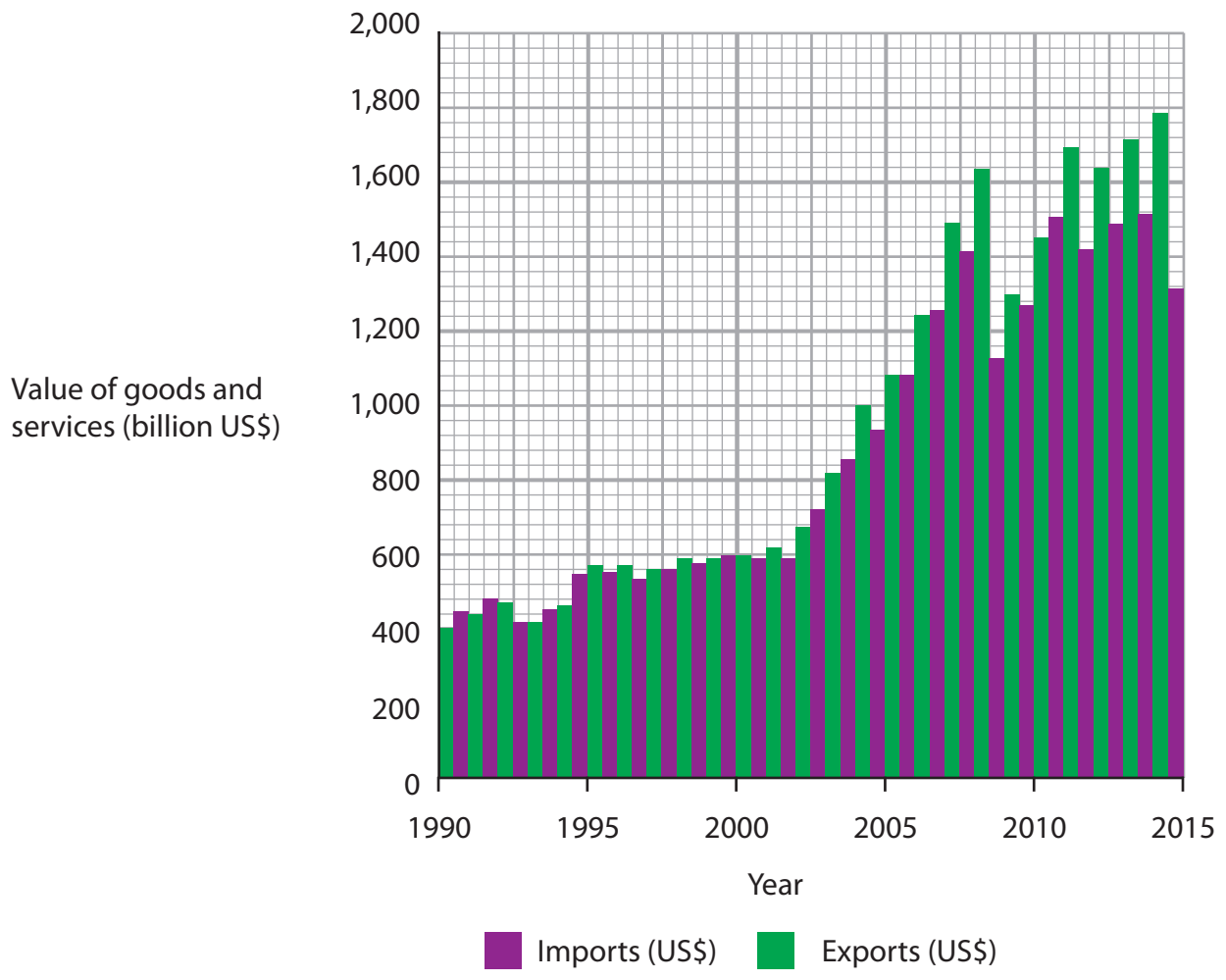


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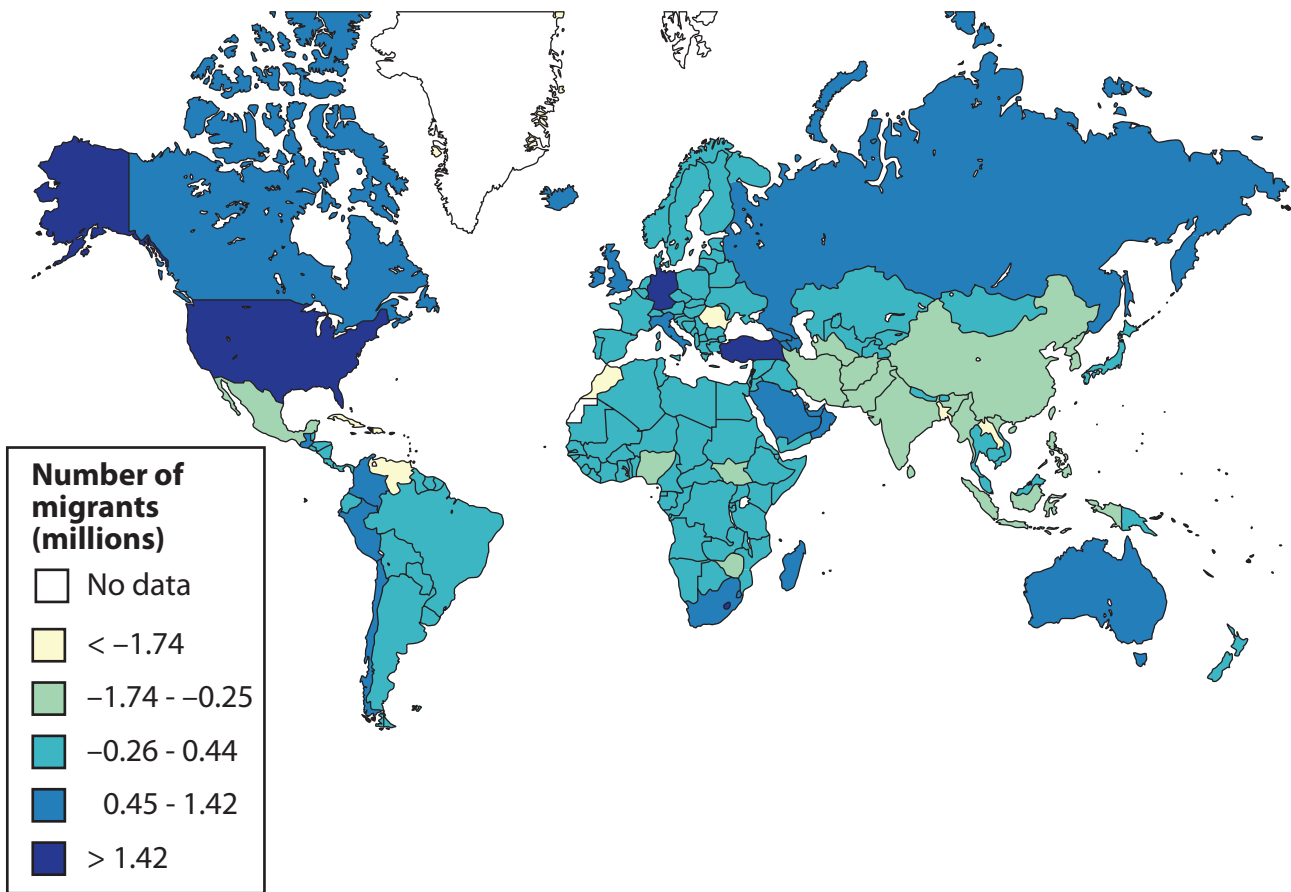


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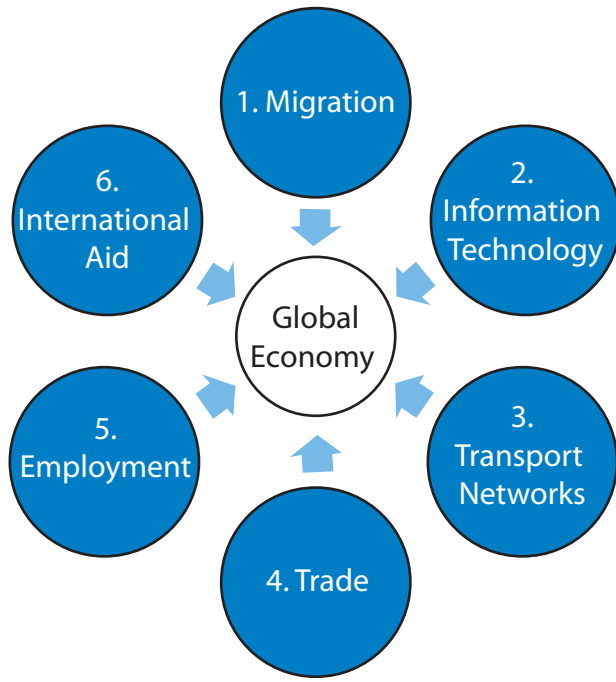


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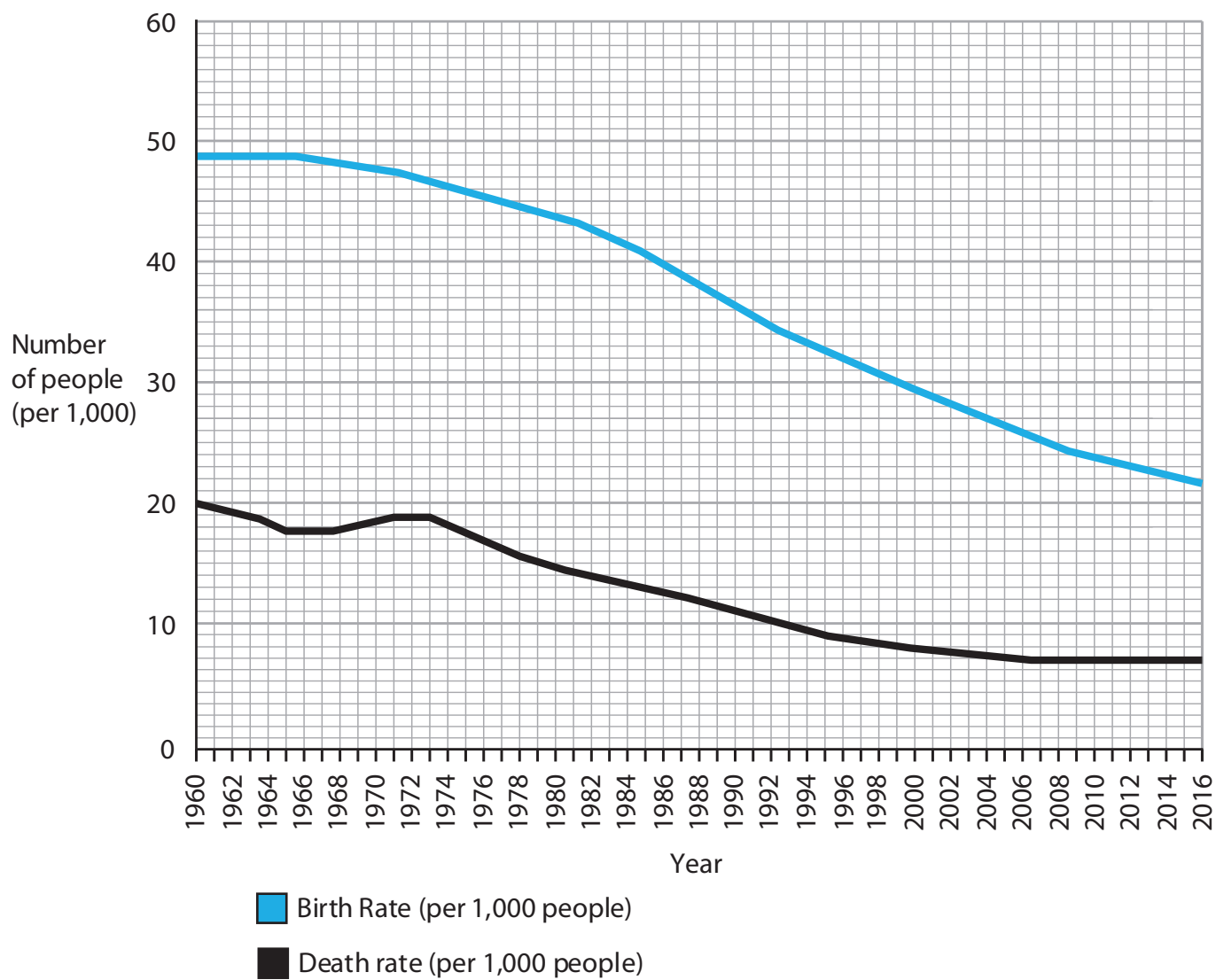


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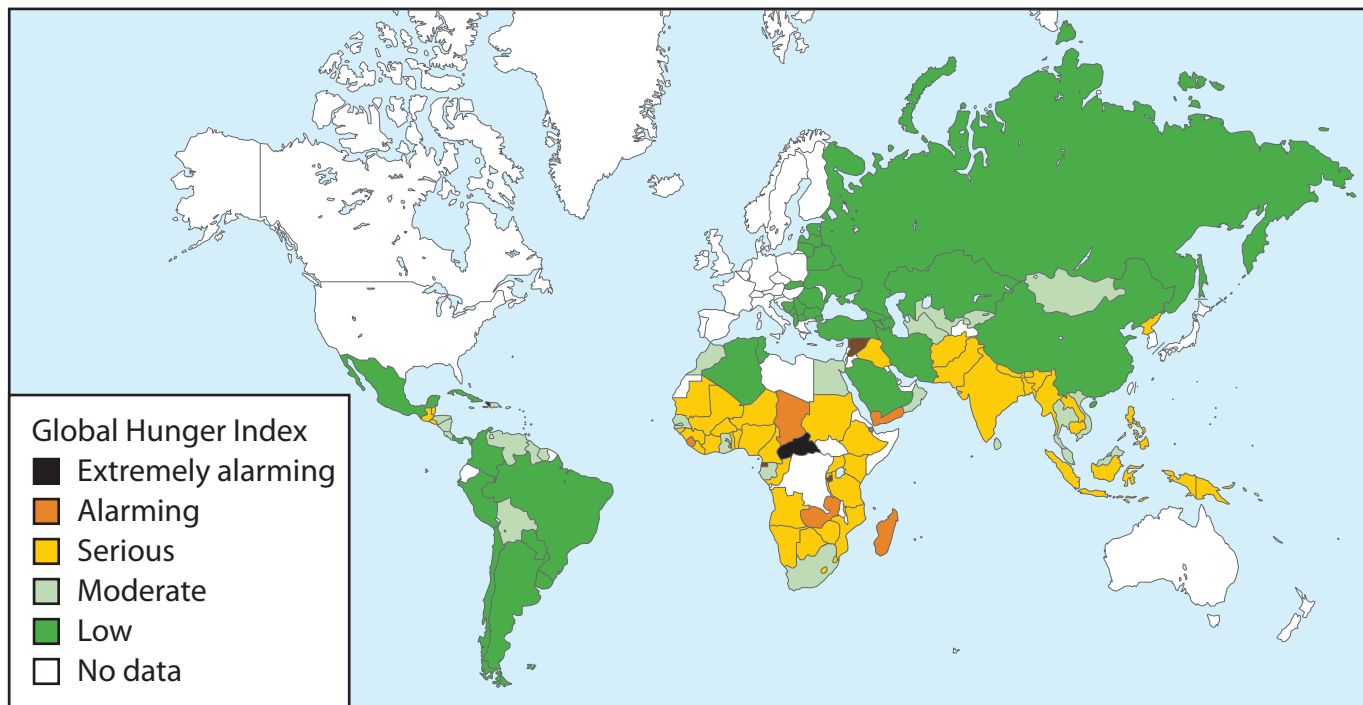


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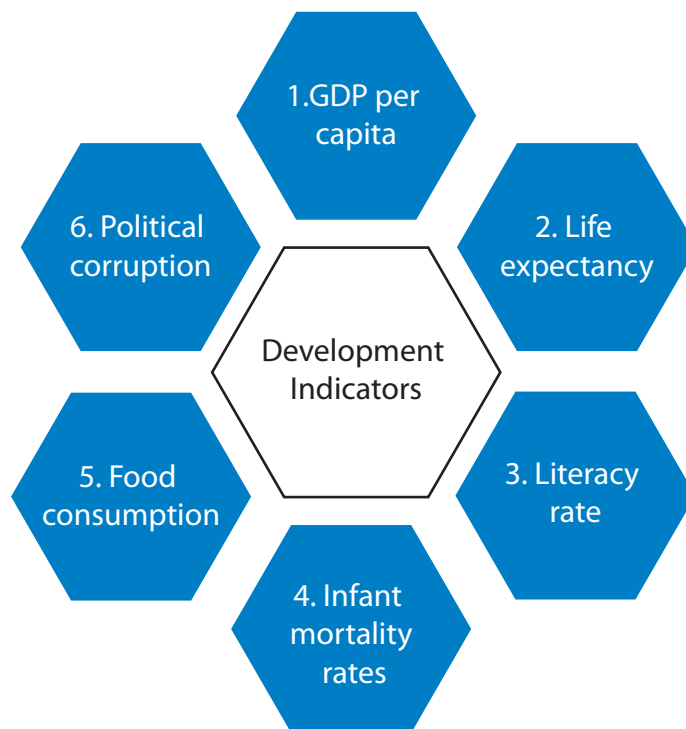


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