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

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

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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) Define the term **energy gap**.

(1)

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

(2)

☒	**A** Coal
☒	**B** Oil
☒	**C** Natural gas
☒	**D** Shale gas
☒	**E** Solar
☒	**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.

(1)

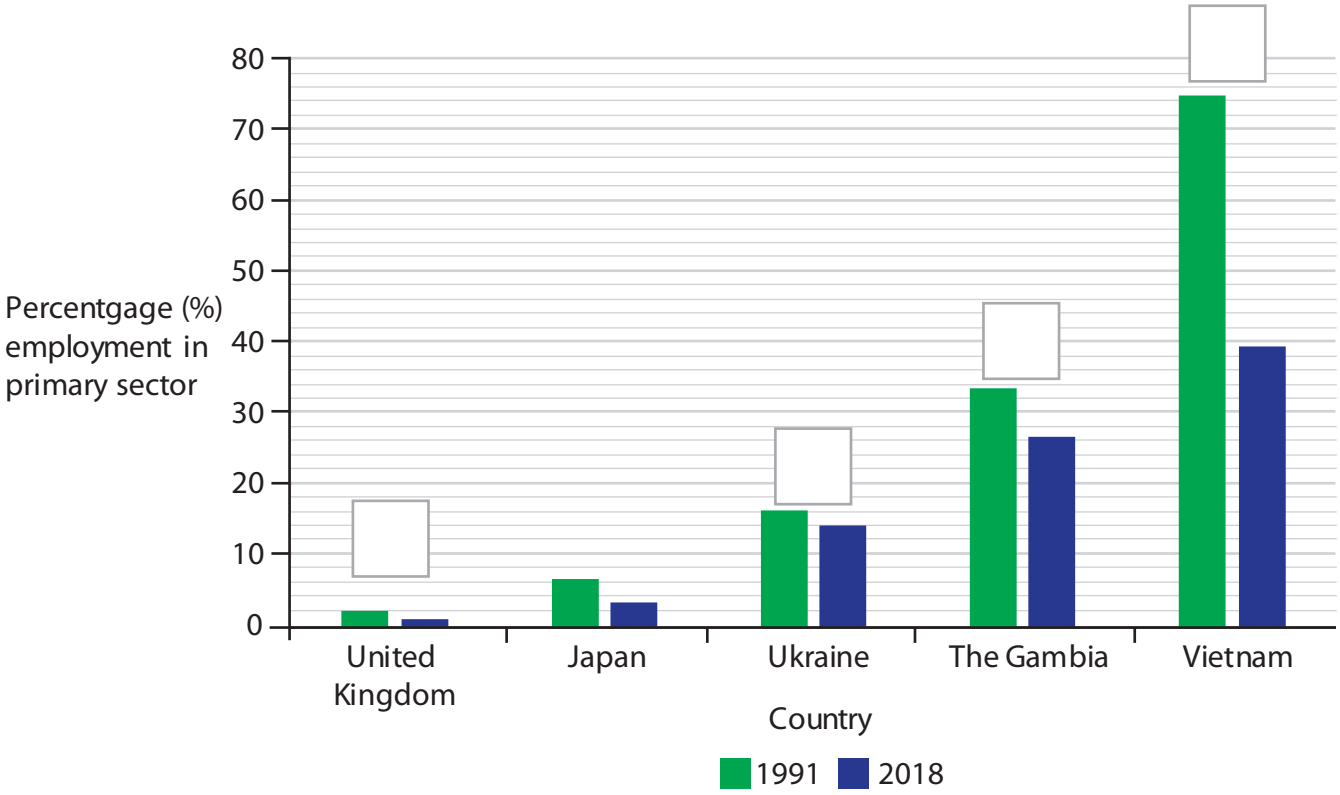

Figure 1b

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)

☒	**A** The Gambia
☒	**B** Japan
☒	**C** Ukraine
☒	**D** Vietnam

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(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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(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)

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

2 Rural environments

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

(1)

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.....

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

(2)

☒	**A** Emission of oxygen
☒	**B** Food
☒	**C** Fuelwood
☒	**D** Recycling of nutrients
☒	**E** Timber for building
☒	**F** Water

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

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

(2)

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

(1)

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(c) Explain **two** ways rural-urban migration affects rural areas.

(4)

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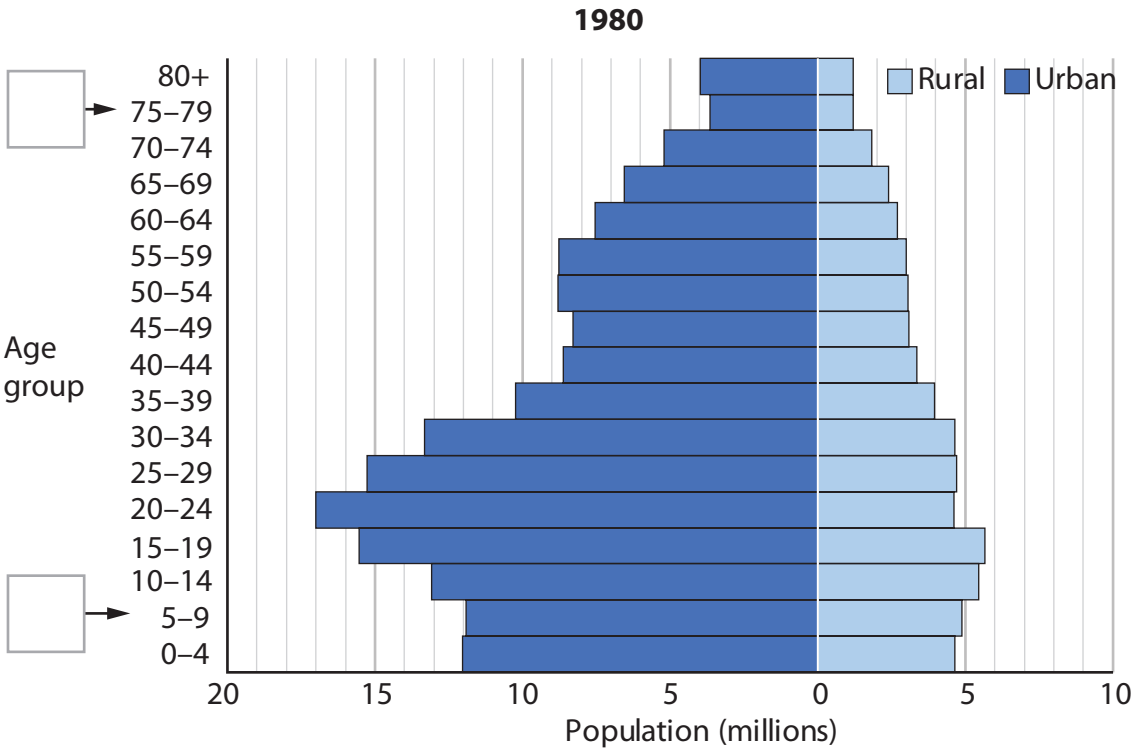
(d) Study Figure 2b below. It shows population pyramids for urban and rural populations in the USA in 1980 and 2015.

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

(1)



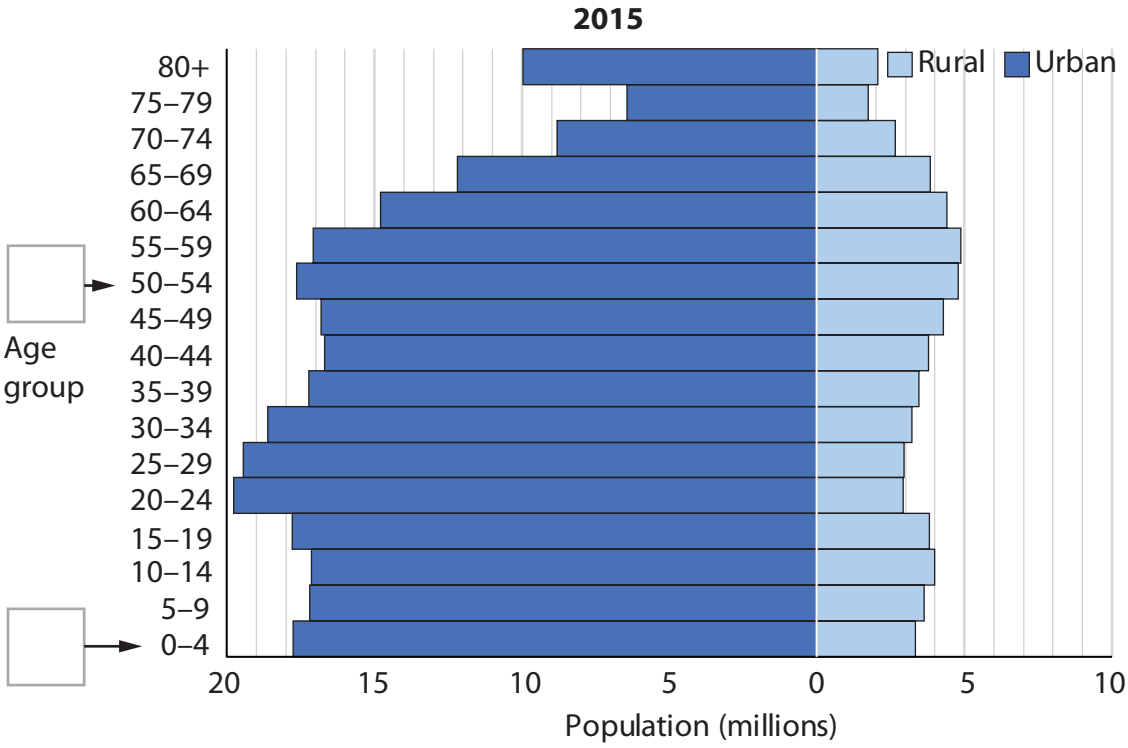


Figure 2b

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)

☒	**A** 0–4 Urban
☒	**B** 20–24 Urban
☒	**C** 35–39 Rural
☒	**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)

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

3 Urban environments

(a) (i) Define the term **suburbanisation**.

(1)

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

(2)

☒	**A** Increased traffic congestion
☒	**B** Increased availability of transport routes
☒	**C** Increased pesticide use
☒	**D** Reduced access to health services
☒	**E** Reduced leisure facilities
☒	**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)

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

(1)

☒	**A** Rural land allocated specifically for a new development.
☒	**B** Land that has been previously used for industrial or commercial purposes, abandoned and now waits new use.
☒	**C** Urban park land that has been designated for industrial or commercial purposes.
☒	**D** Land that has never been used and awaits new use for industrial or commercial purposes.

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(c) Explain **two** factors that can affect urban land use patterns.

(4)

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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 μg/m³.

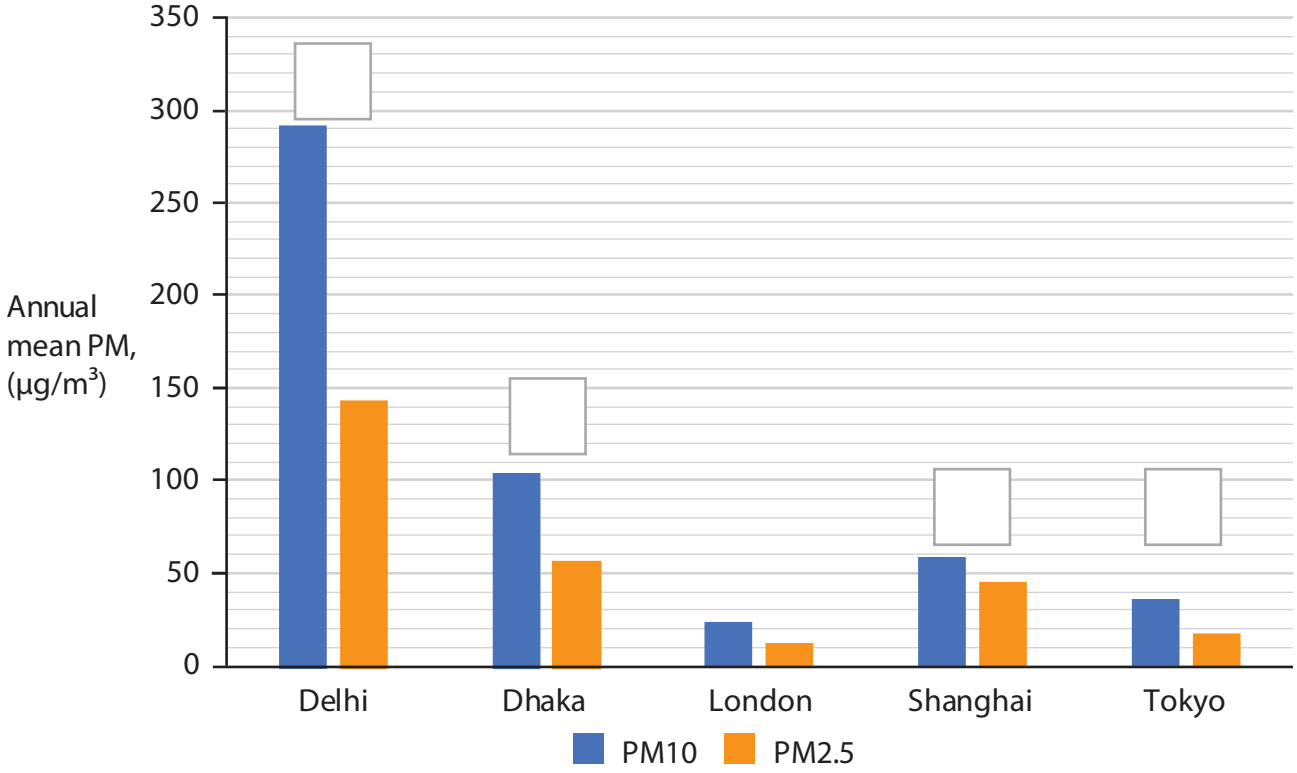

Figure 3b

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)

☒	**A** Delhi
☒	**B** Dhaka
☒	**C** London
☒	**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

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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)

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(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.

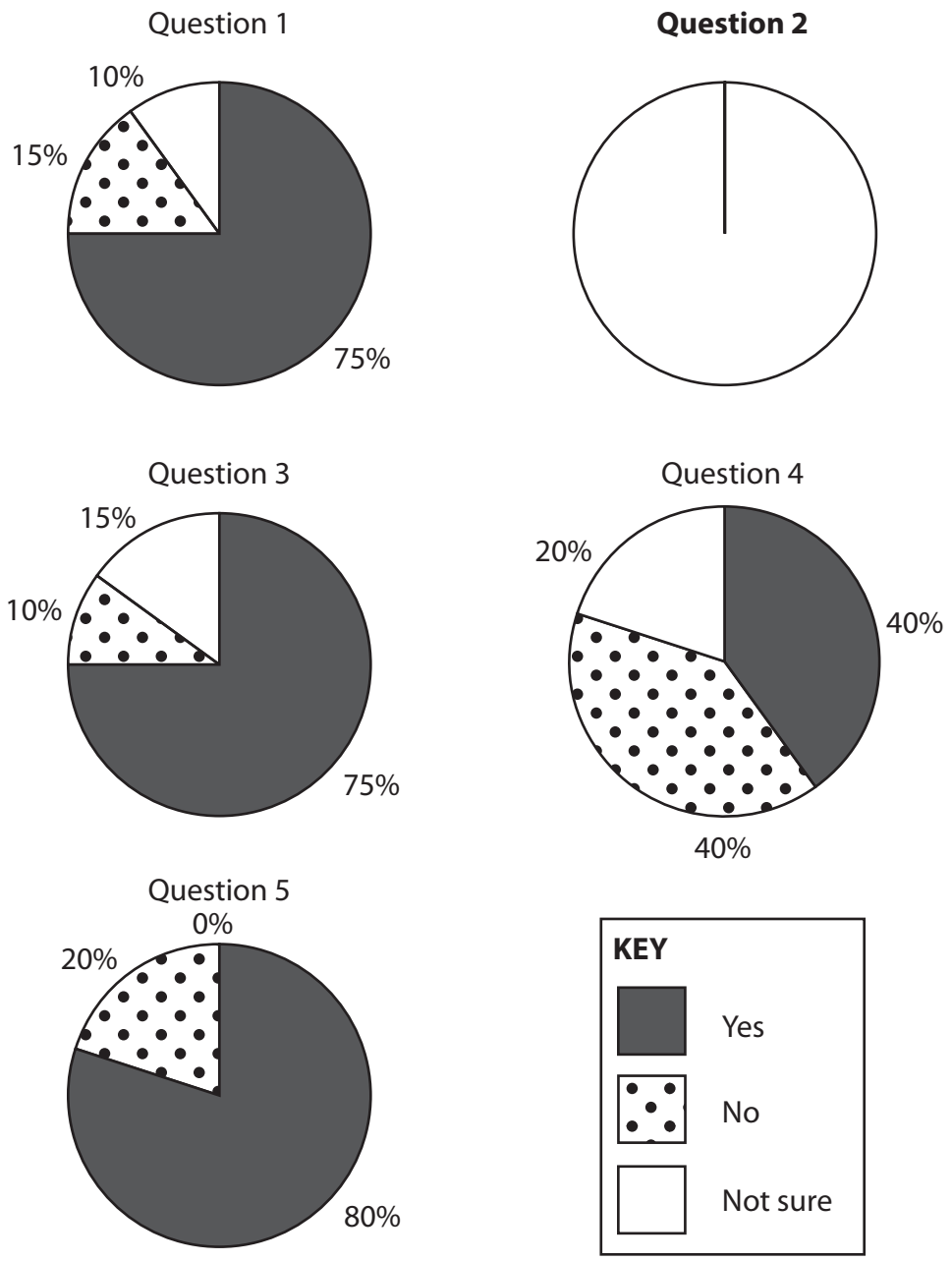

Figure 4c

Results from a questionnaire presented in pie charts

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

(1)

☒	**A** An expensive data collection method compared to other methods.
☒	**B** Guarantees responses from people.
☒	**C** Potential to generate a mixture of qualitative and quantitative data.
☒	**D** Provides data about everything you need to know.

(iii) Identify the correct statement below.

(1)

☒	**A** The mean percentage for people who answered 'not sure' was 1.
☒	**B** The mean percentage for people who answered 'not sure' was 11.
☒	**C** The mean percentage for people who answered 'not sure' was 21.
☒	**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)

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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)

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(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.

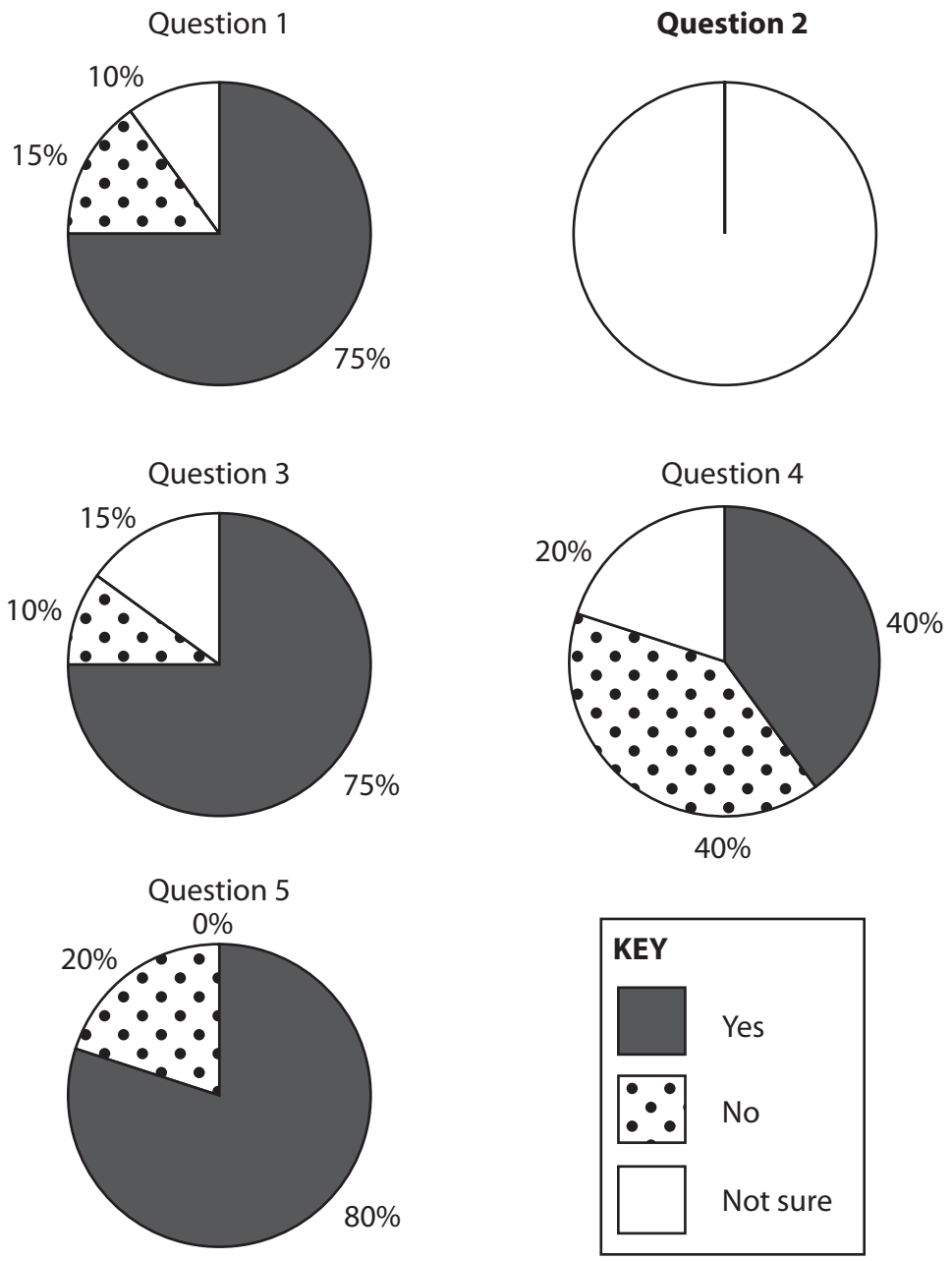

Figure 5c

Results from a questionnaire displayed in pie charts

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

(1)

☒	**A** An expensive data collection method compared to other methods.
☒	**B** Guarantees responses from people.
☒	**C** Potential to generate a mixture of qualitative and quantitative data.
☒	**D** Provides data about everything you need to know.

(iii) Identify the correct statement below.

(1)

☒	**A** The mean percentage for people who answered 'not sure' was 1.
☒	**B** The mean percentage for people who answered 'not sure' was 11.
☒	**C** The mean percentage for people who answered 'not sure' was 21.
☒	**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)

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(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.

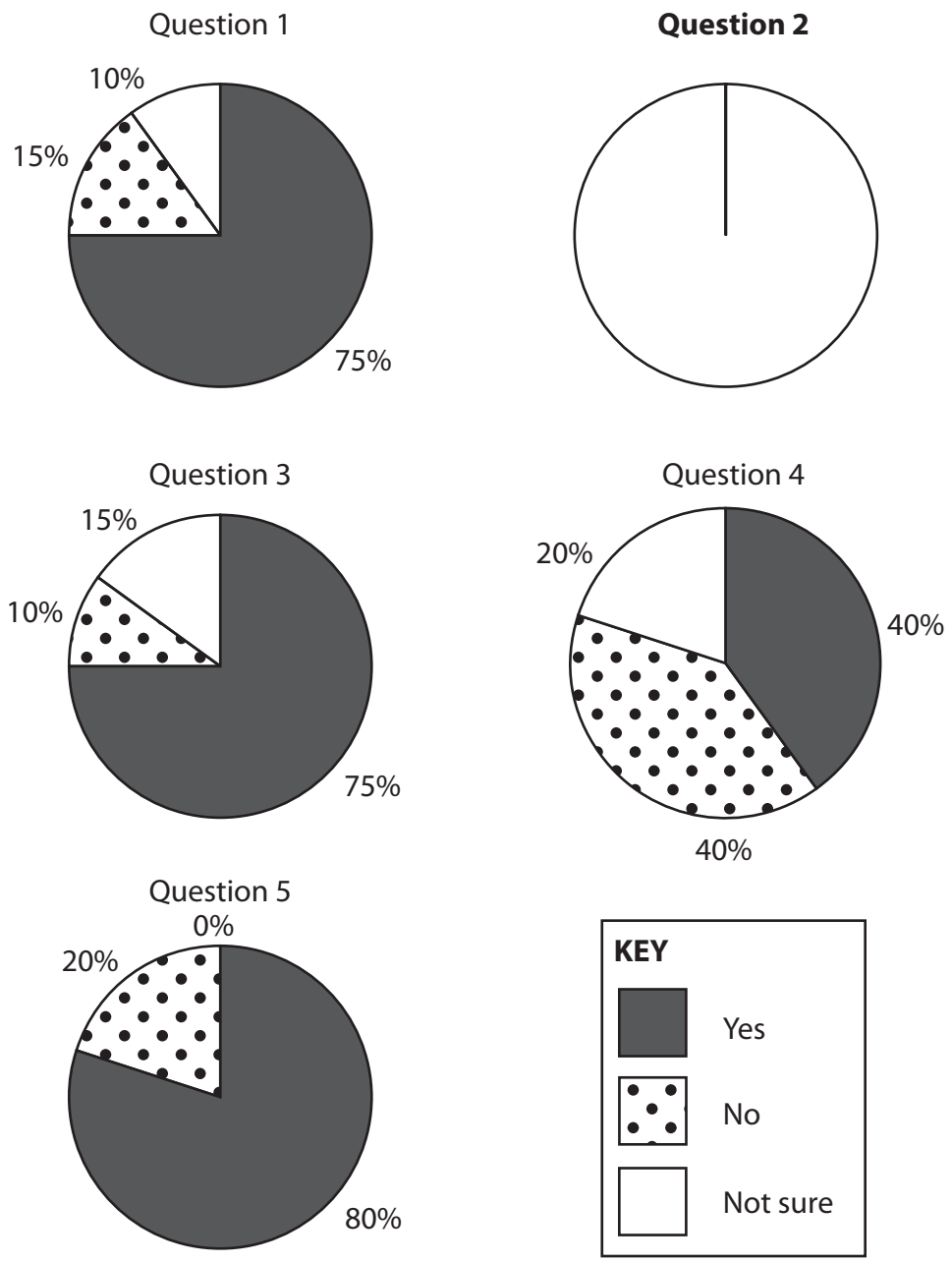

Figure 6c

Results from a questionnaire displayed in pie charts

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

(1)

☒	**A** An expensive data collection method compared to other methods.
☒	**B** Guarantees responses from people.
☒	**C** Potential to generate a mixture of qualitative and quantitative data.
☒	**D** Provides data about everything you need to know.

(iii) Identify the correct statement below.

(1)

☒	**A** The mean percentage for people who answered 'not sure' was 1.
☒	**B** The mean percentage for people who answered 'not sure' was 11.
☒	**C** The mean percentage for people who answered 'not sure' was 21.
☒	**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

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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)

☐	**A** A period of time with abnormally low rainfall.
☐	**B** A period of time with high rainfall.
☐	**C** A period of time with high temperatures.
☐	**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)

☐	**A** Removing trees in affected areas
☐	**B** Install solar panels
☐	**C** Install water storage devices
☐	**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 CO_2 and global temperature variation.

(2)

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(iii) Identify **two** reasons for the increased CO_2 emissions.

(2)

1 .....

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2 .....

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

(2)

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

(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)

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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)

☒	**A** Tourism that uses all its money for conservation.
☒	**B** Tourism that only uses renewable energy sources.
☒	**C** Tourism that prioritises trips to fragile environments.
☒	**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)

☒	**A** Improved facilities at airports
☒	**B** More public holidays
☒	**C** Increased disposable income
☒	**D** Rapid industrialisation

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

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

(1)

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(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)

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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)

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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)

☒	**A** Percentage of GDP spent on transport
☒	**B** Percentage of GDP spent on importing energy
☒	**C** Percentage of GDP spent on education
☒	**D** Percentage of GDP spent on international aid

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

(2)

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

(1)

☒	**A** Percentage employed in agriculture
☒	**B** Life expectancy
☒	**C** Amount of GDP from remittances
☒	**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)

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(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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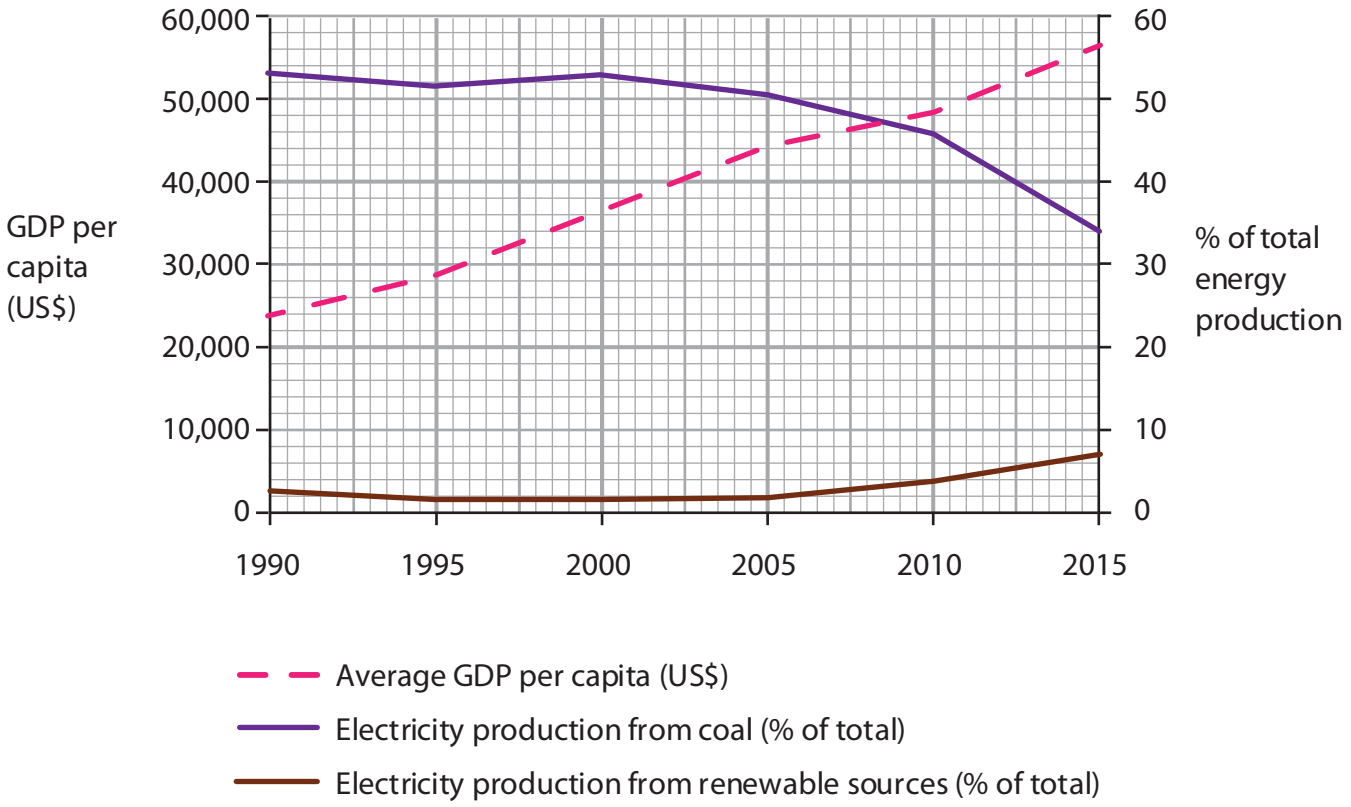
Figure 1a

Photograph of an electric bus



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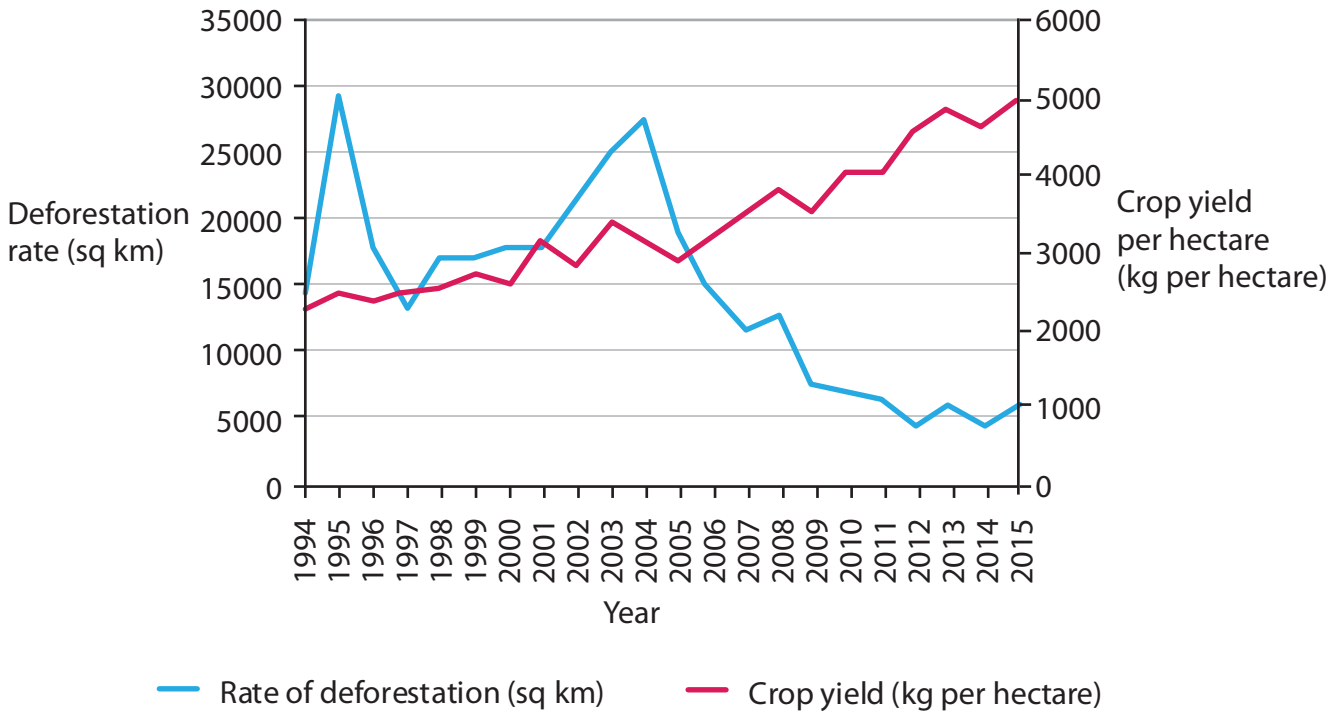

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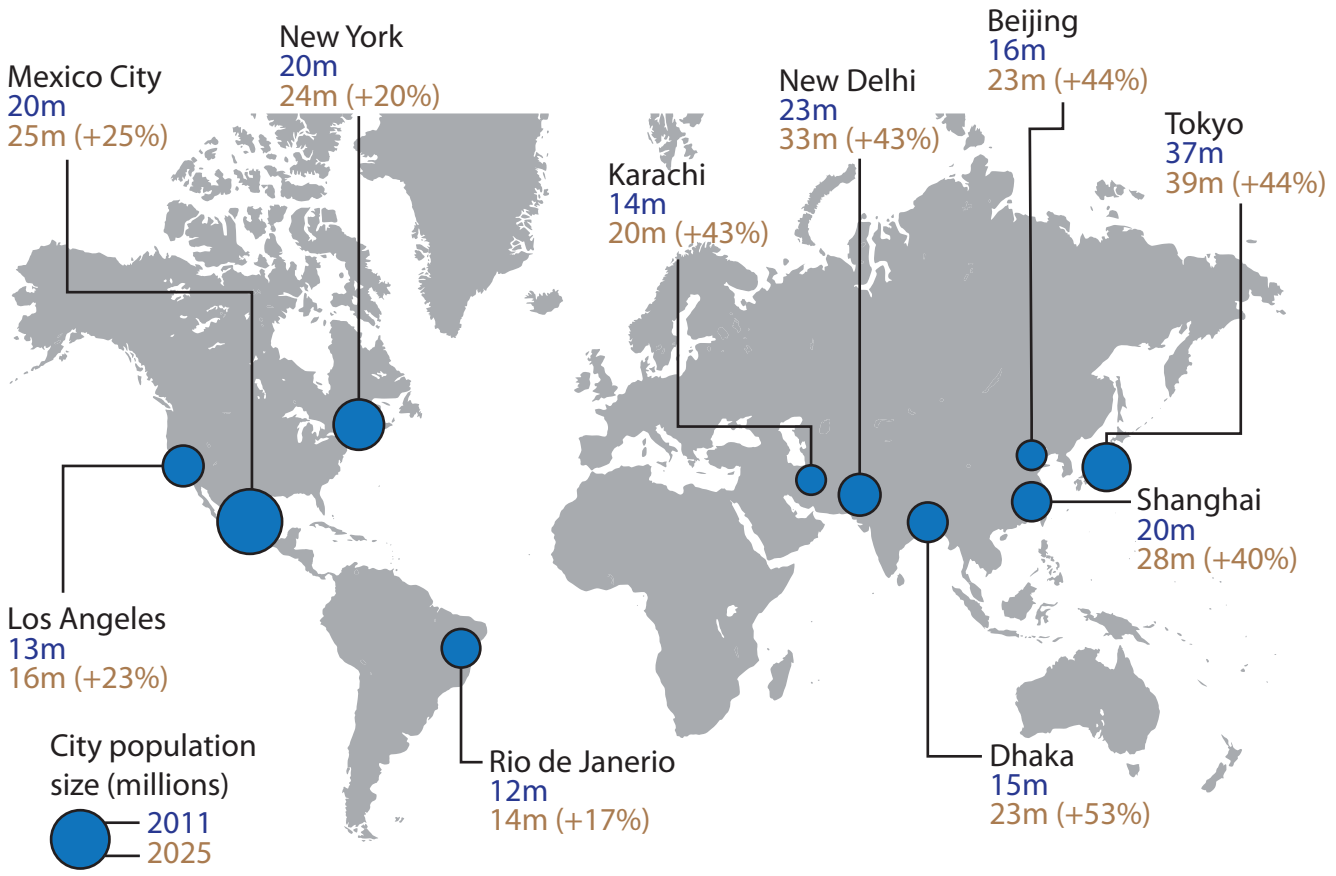

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Question 5: Are you local to this area?	80	20	0

Figure 4b

Extract from a student's questionnaire

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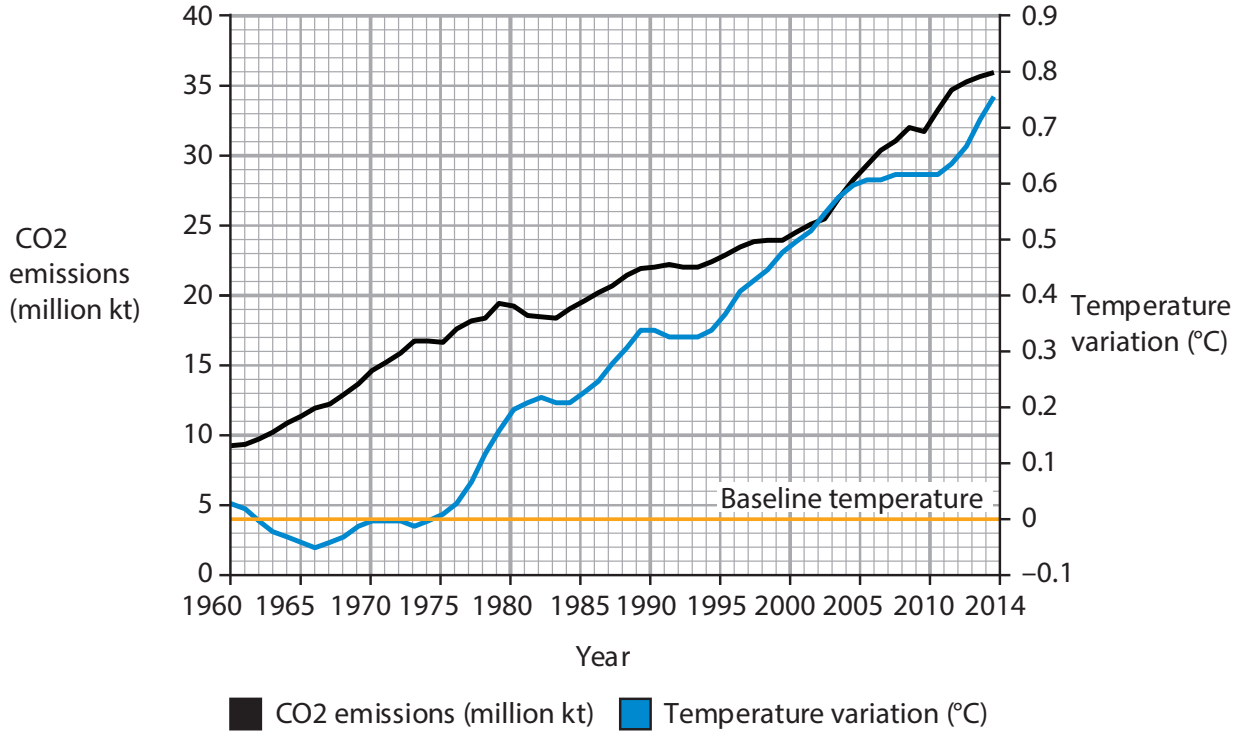

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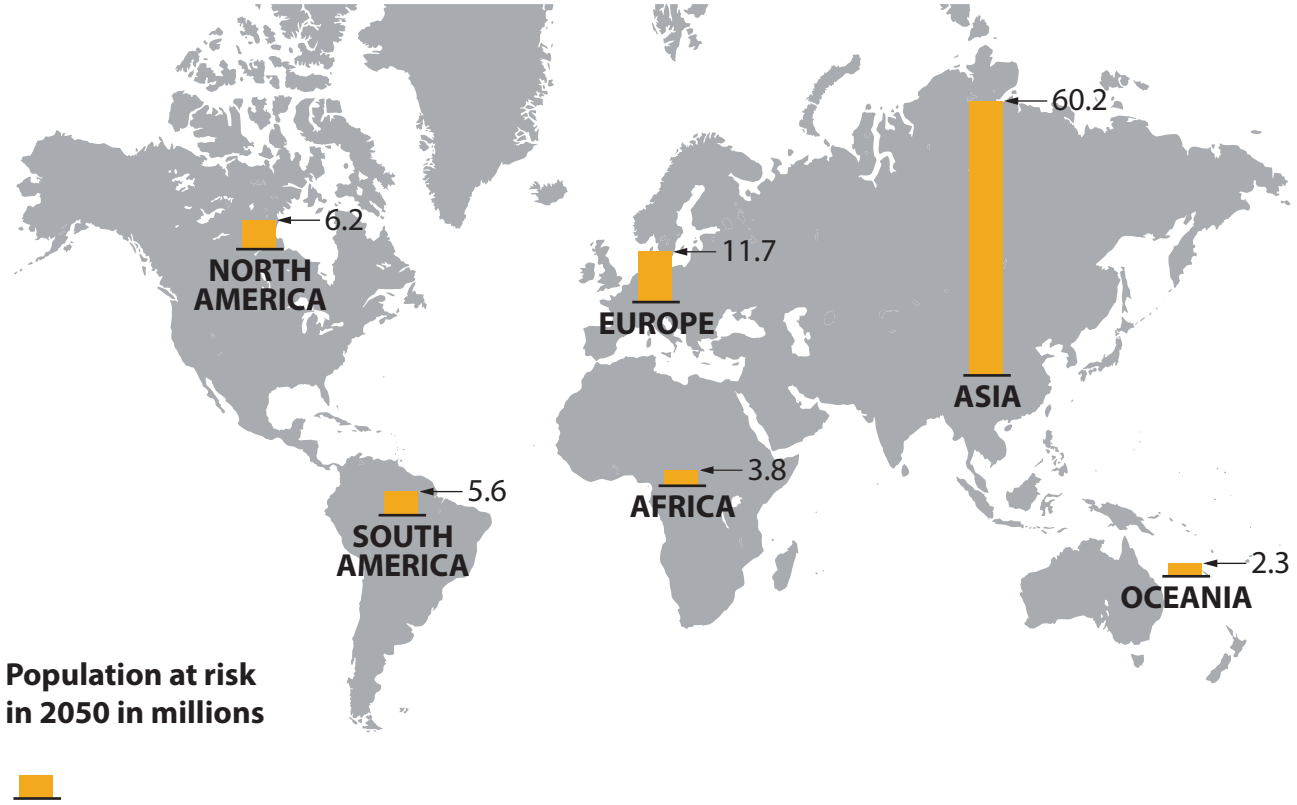

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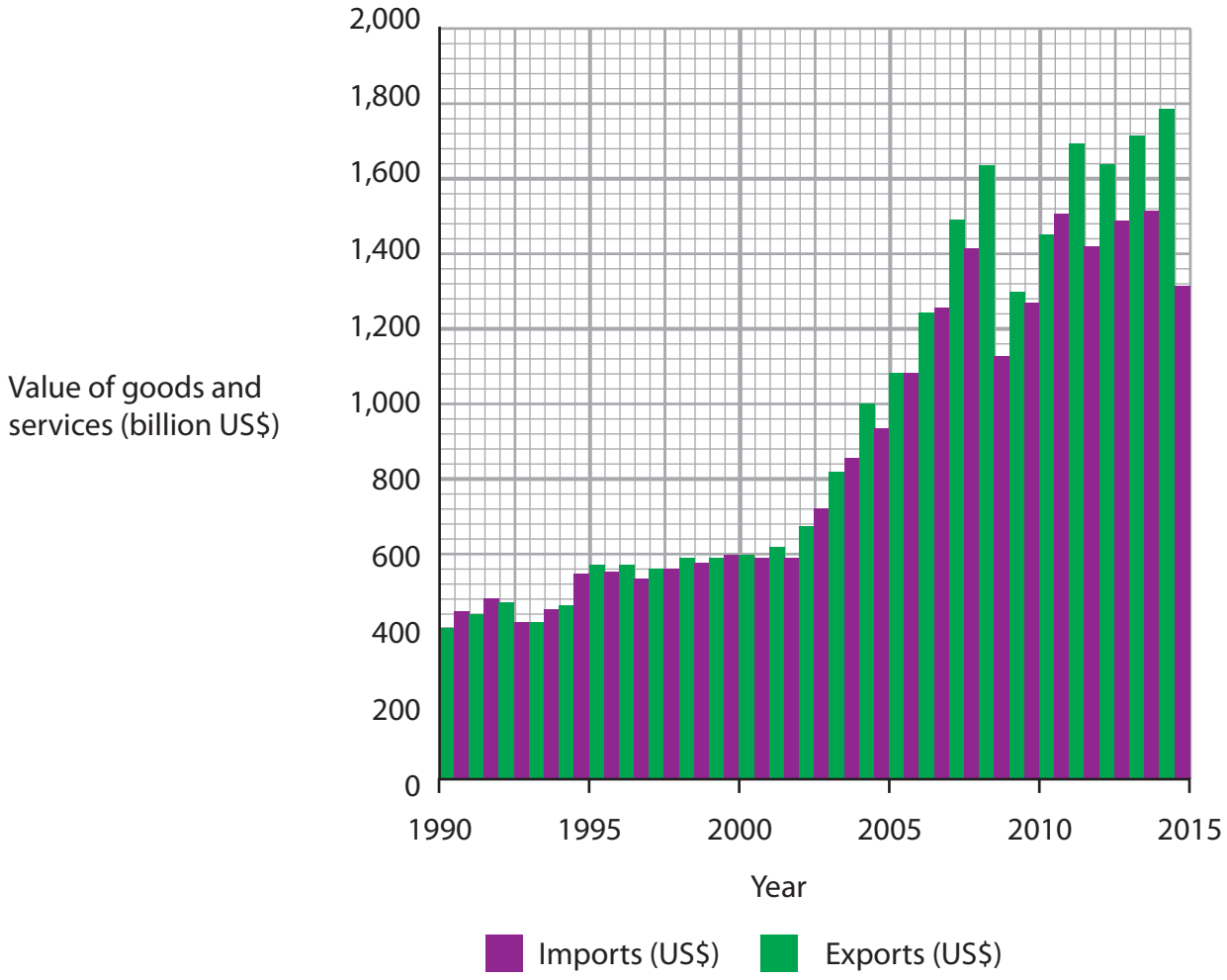
Global map of populations at risk from 0.15m sea level rise due to climate change

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

Figure 7c

Selected potential threats from global climate change



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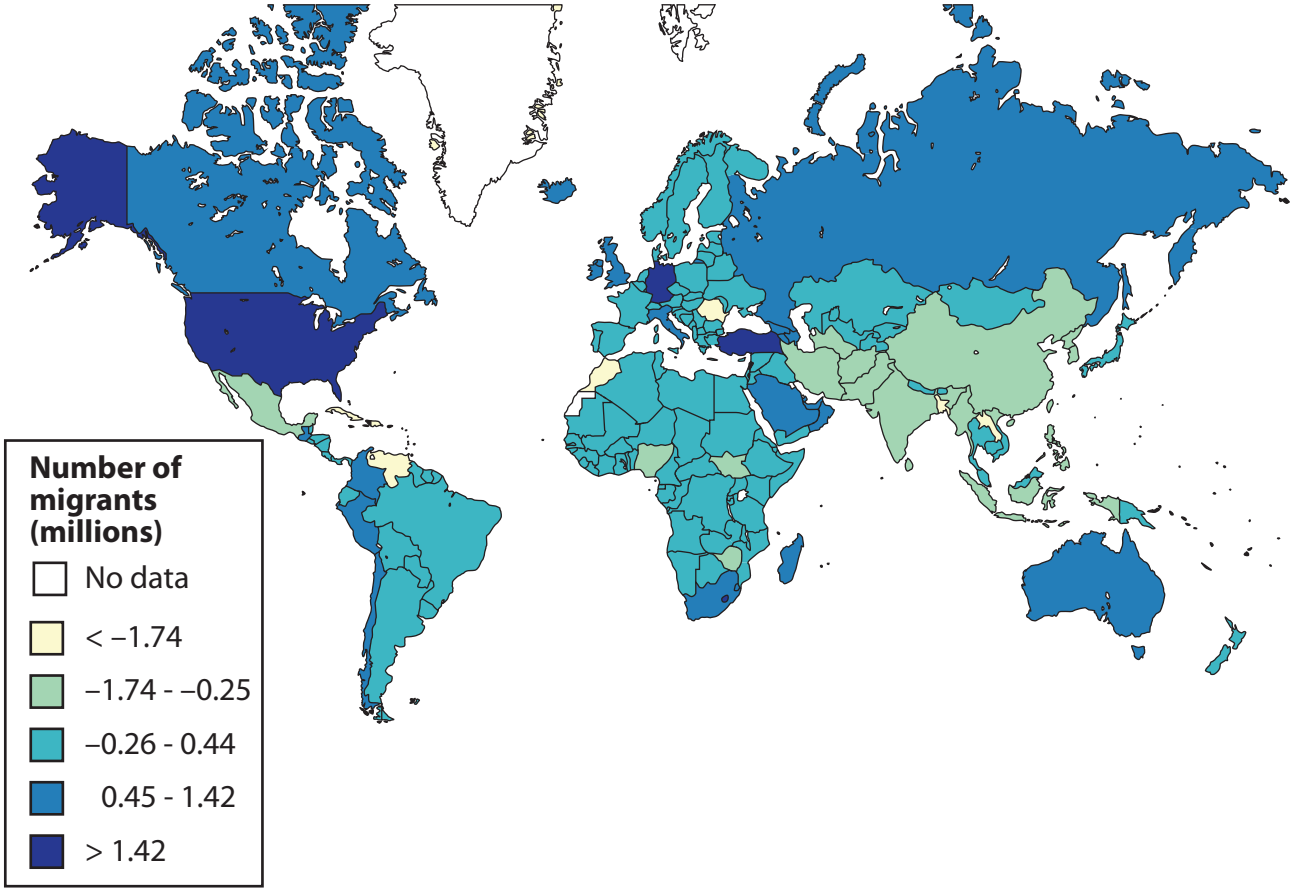

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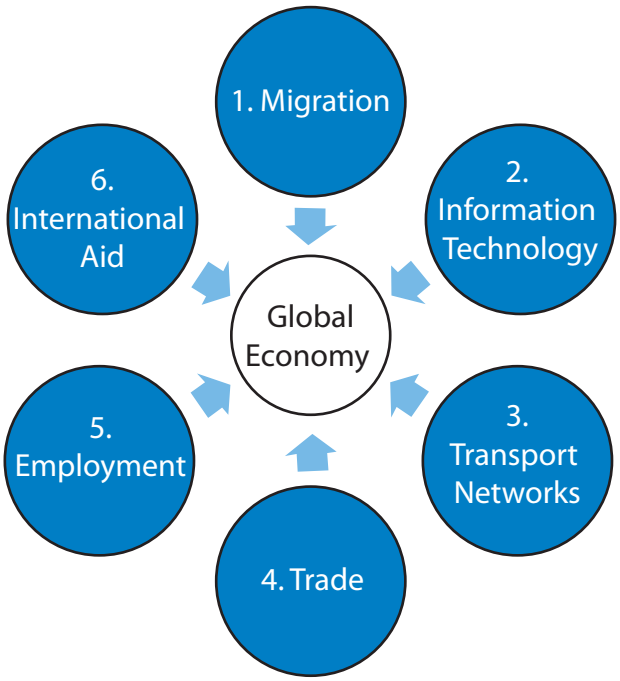
Global map of net migration, 2017



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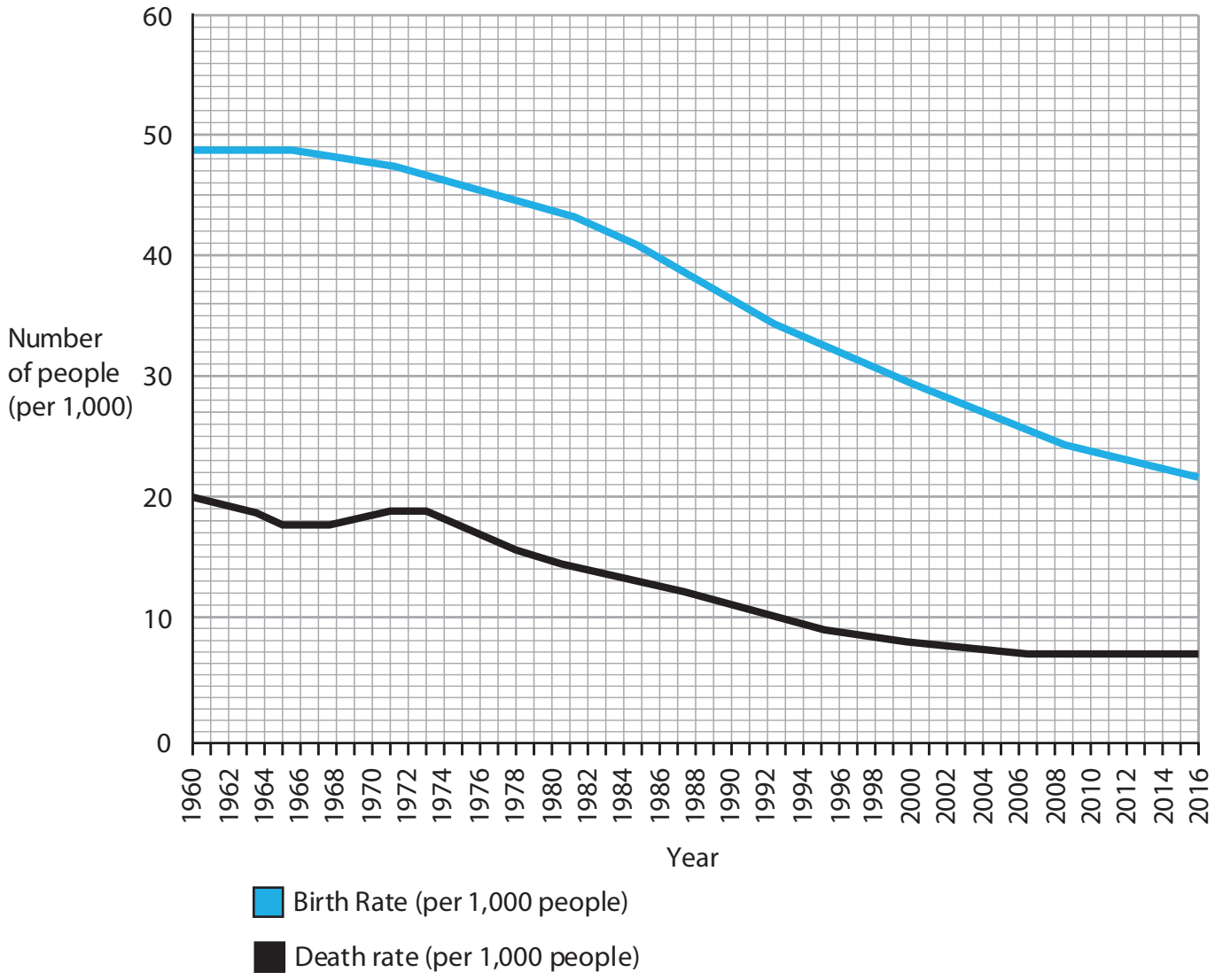
Selected factors affecting the global economy in rank order



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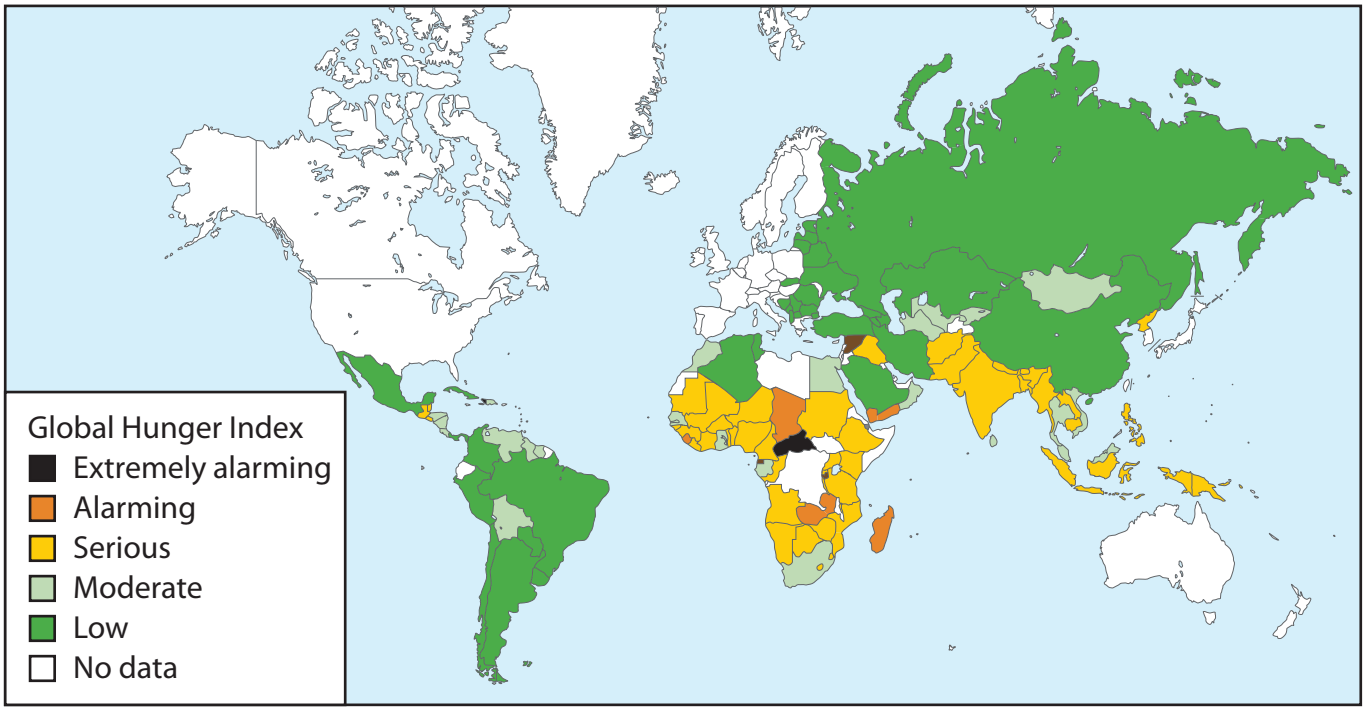

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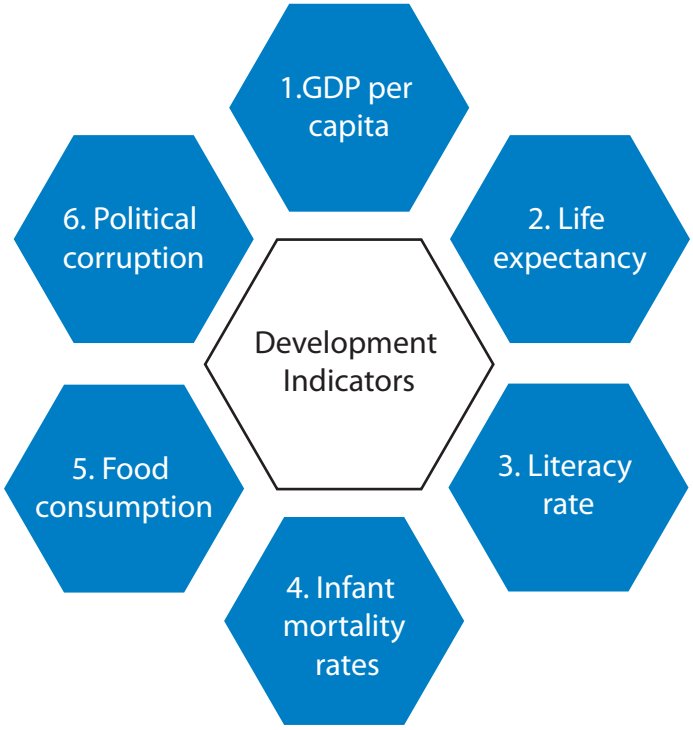
Map of the 2018 Global Hunger Index, a measure of food security



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Selected Development Indicators in rank order

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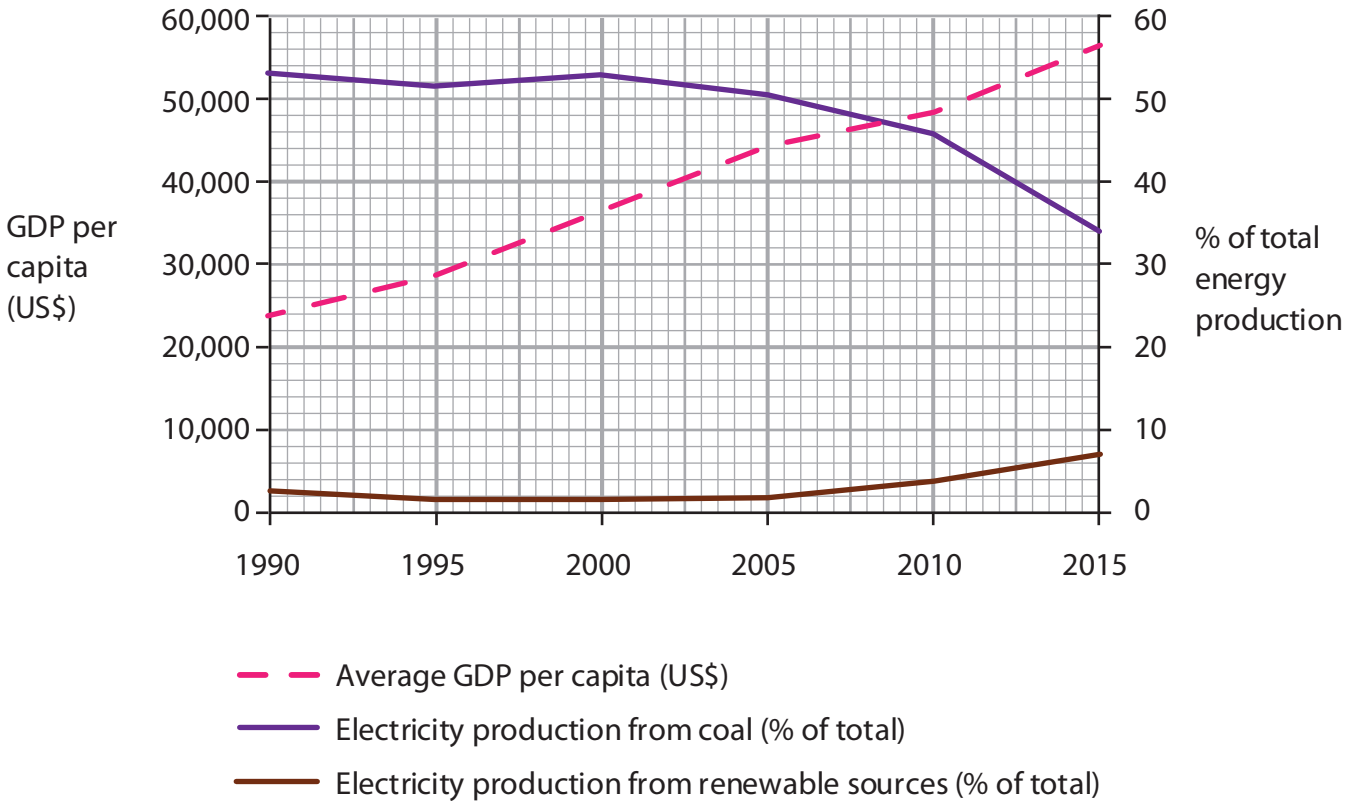

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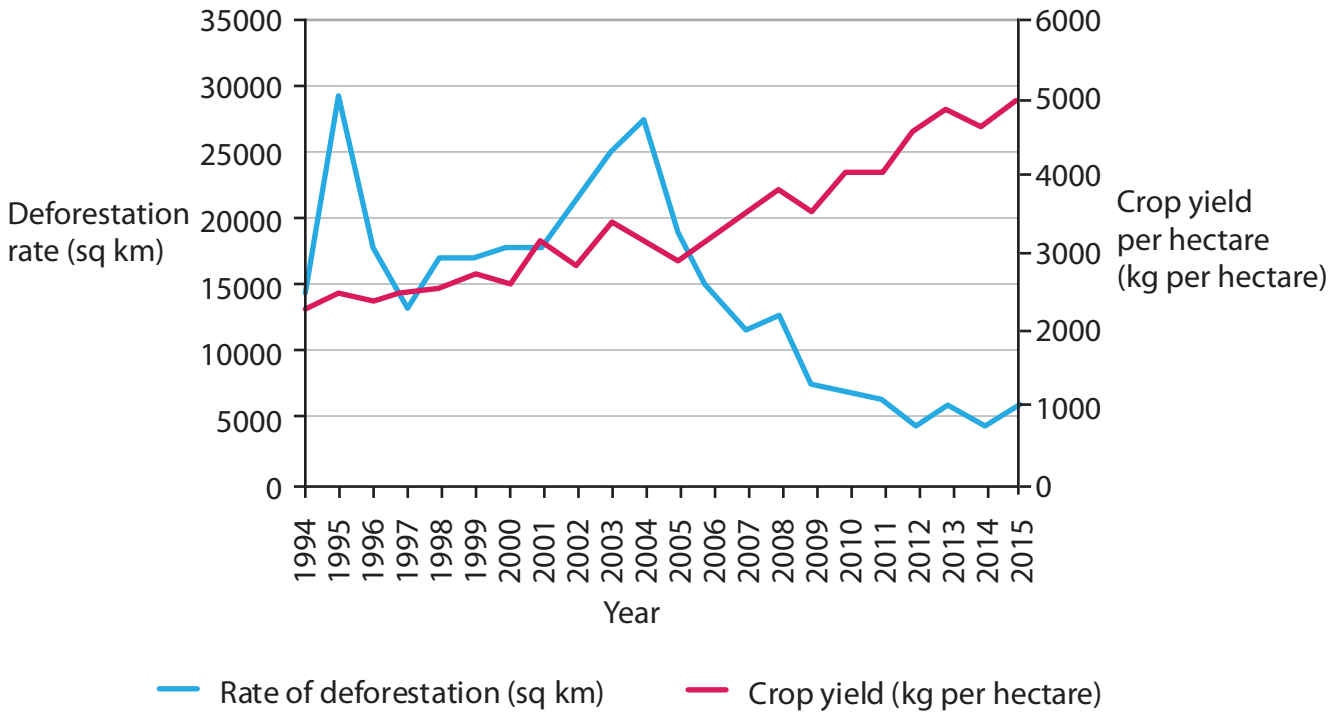

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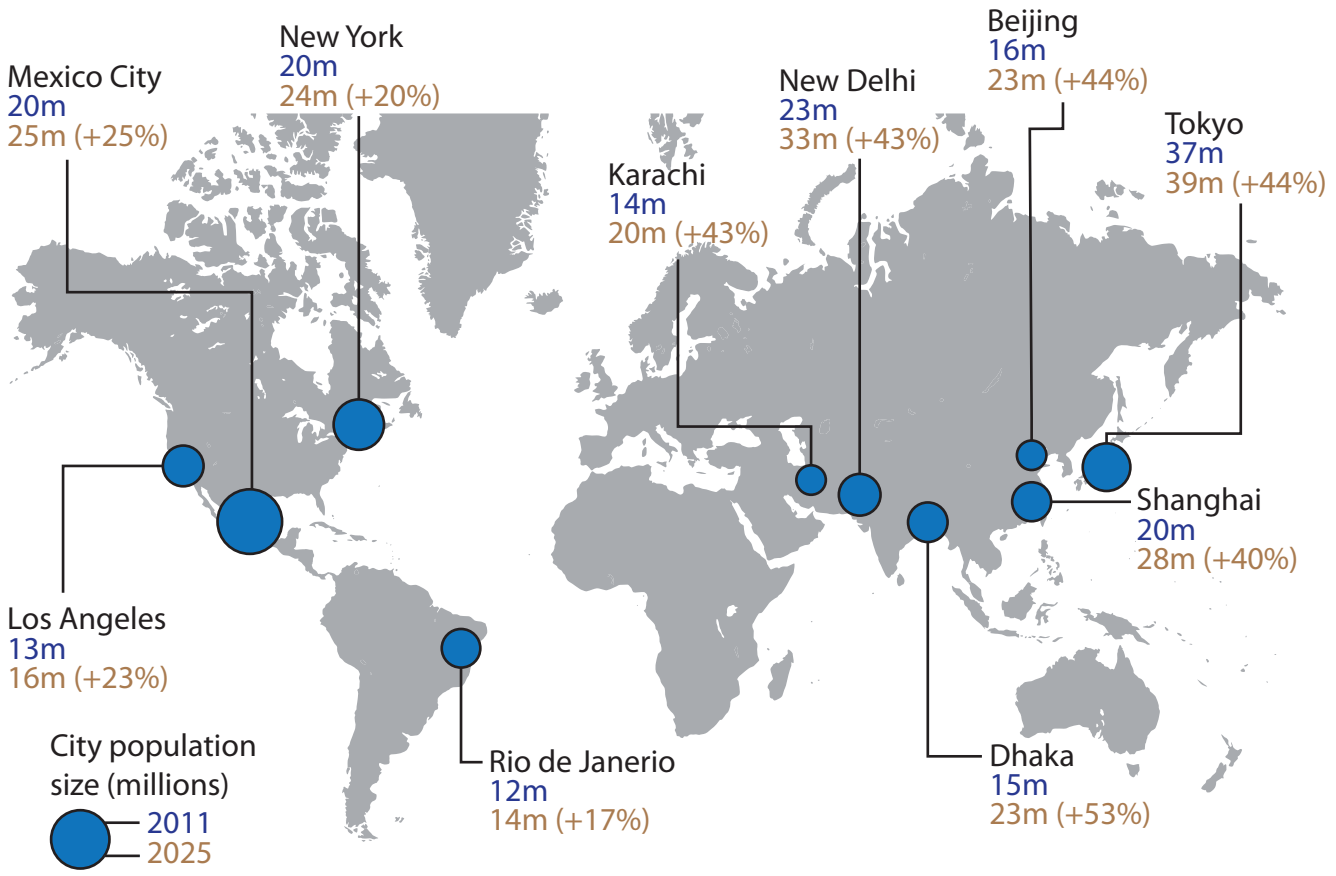

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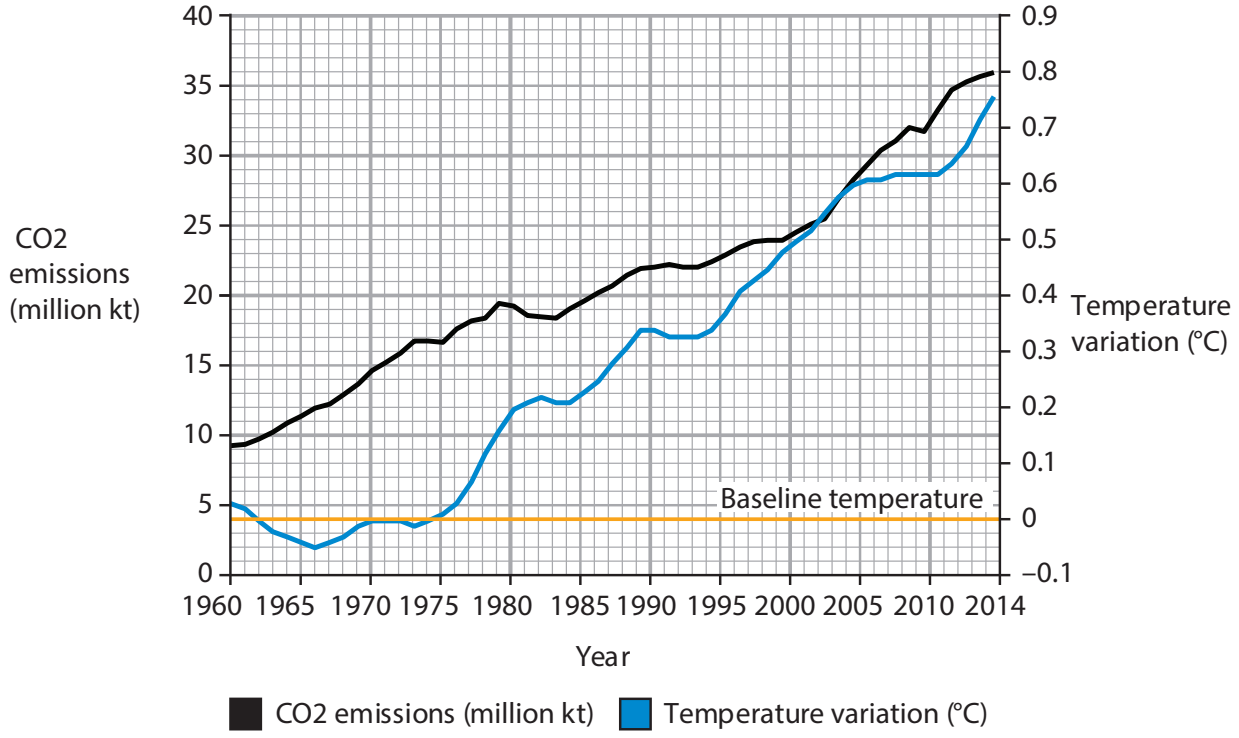

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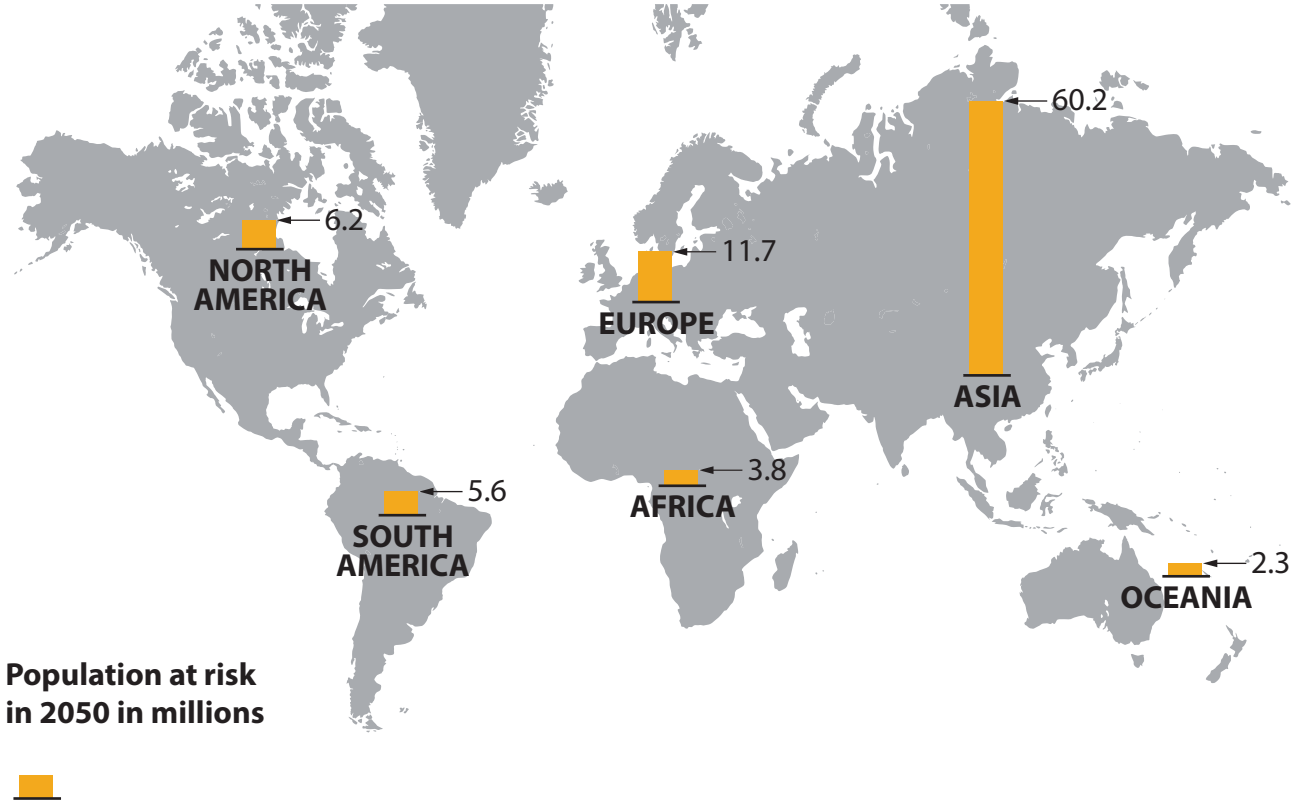

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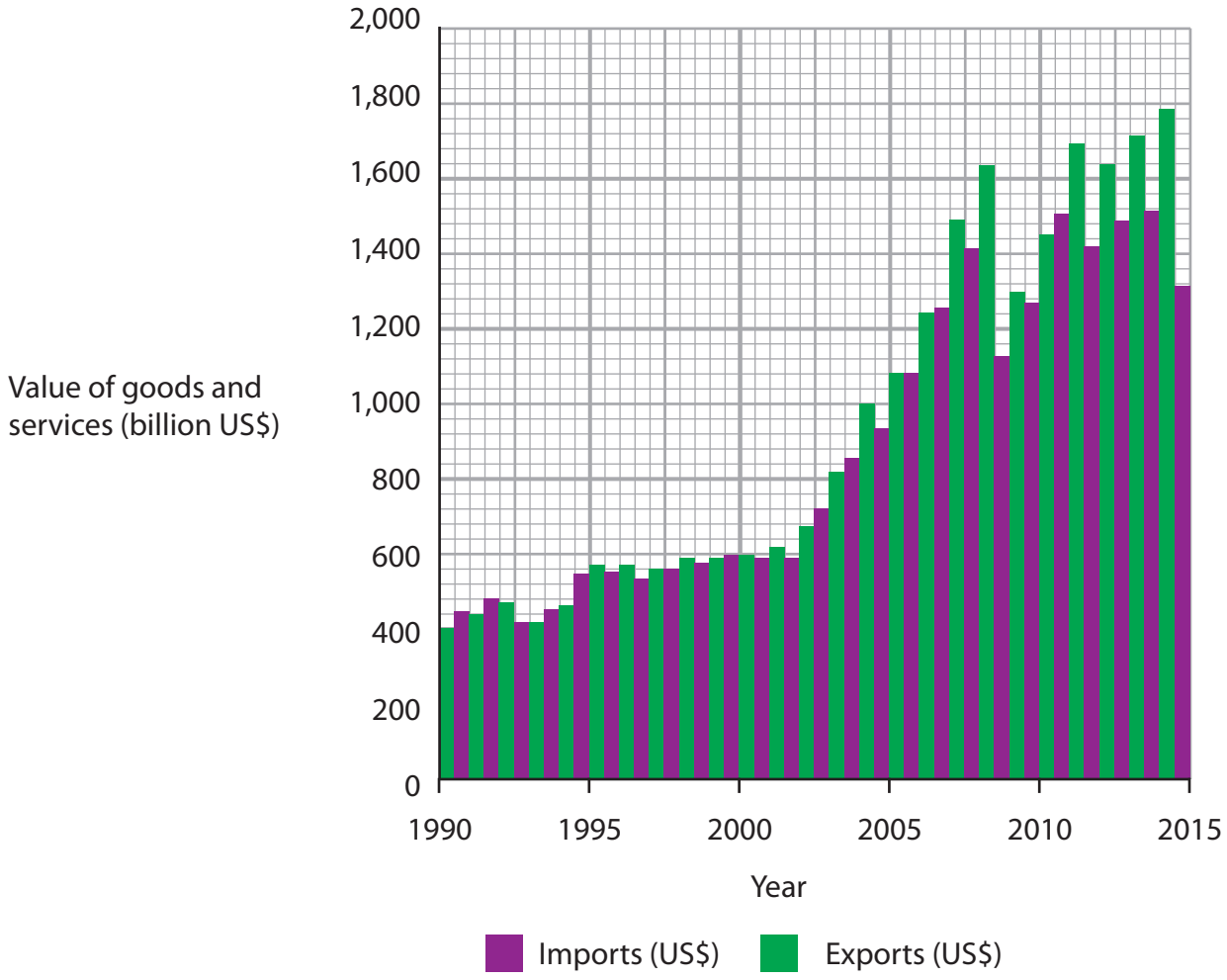

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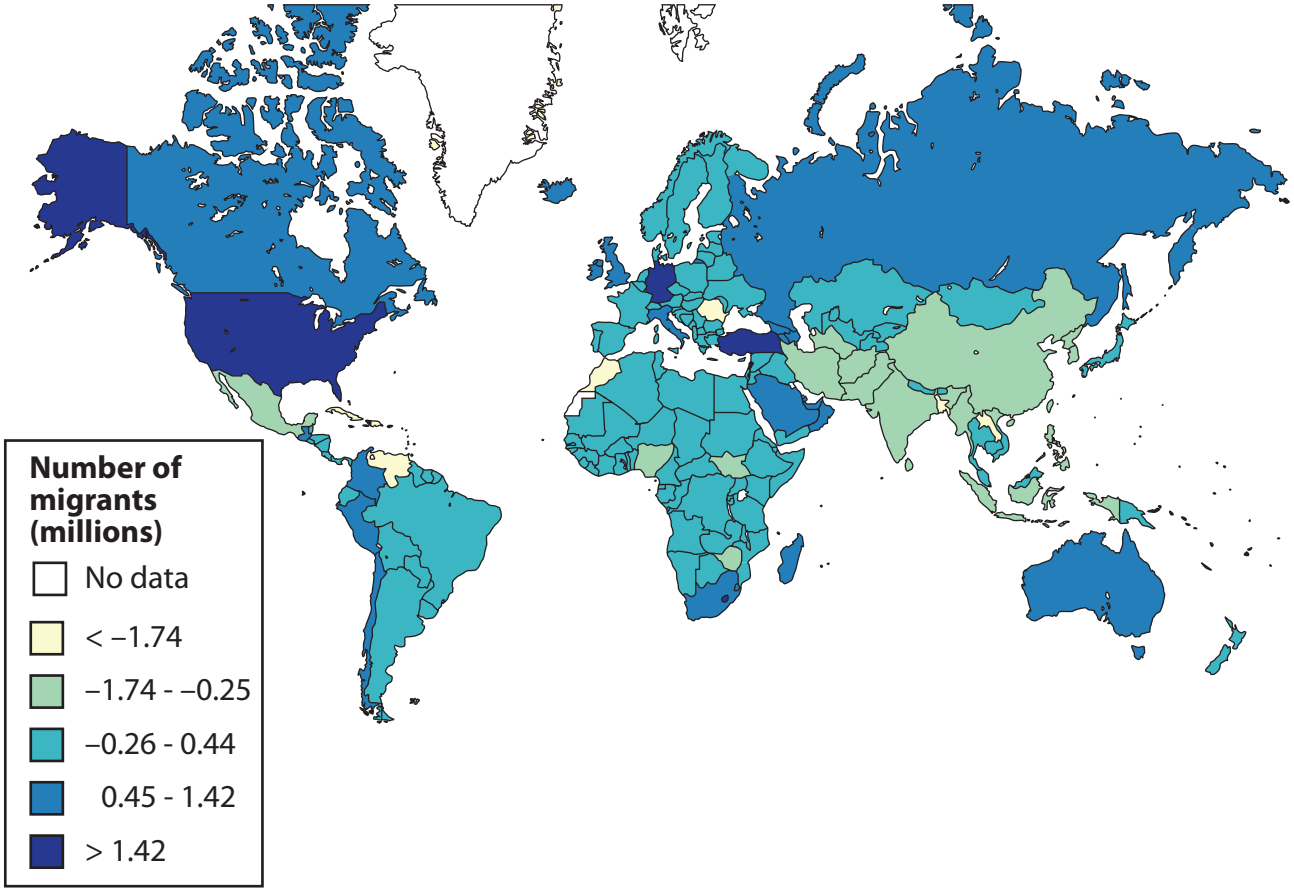

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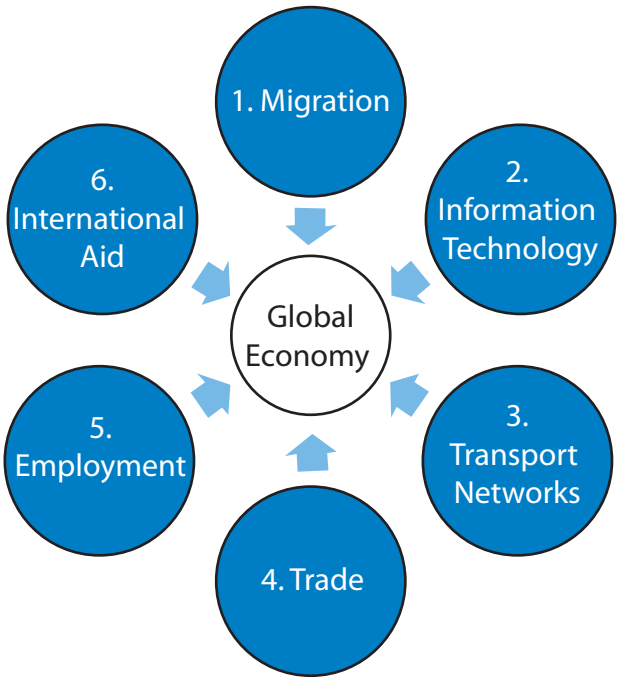

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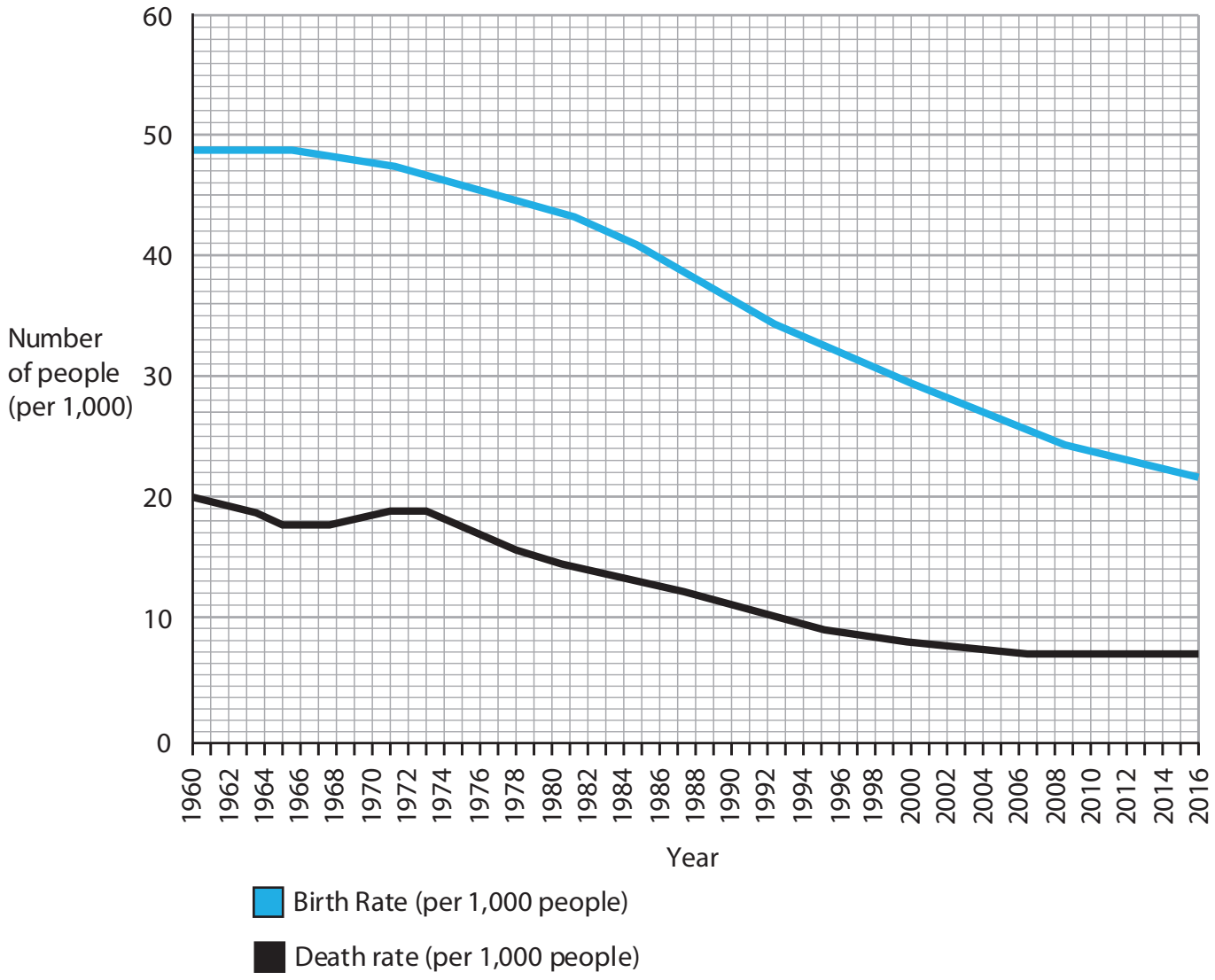

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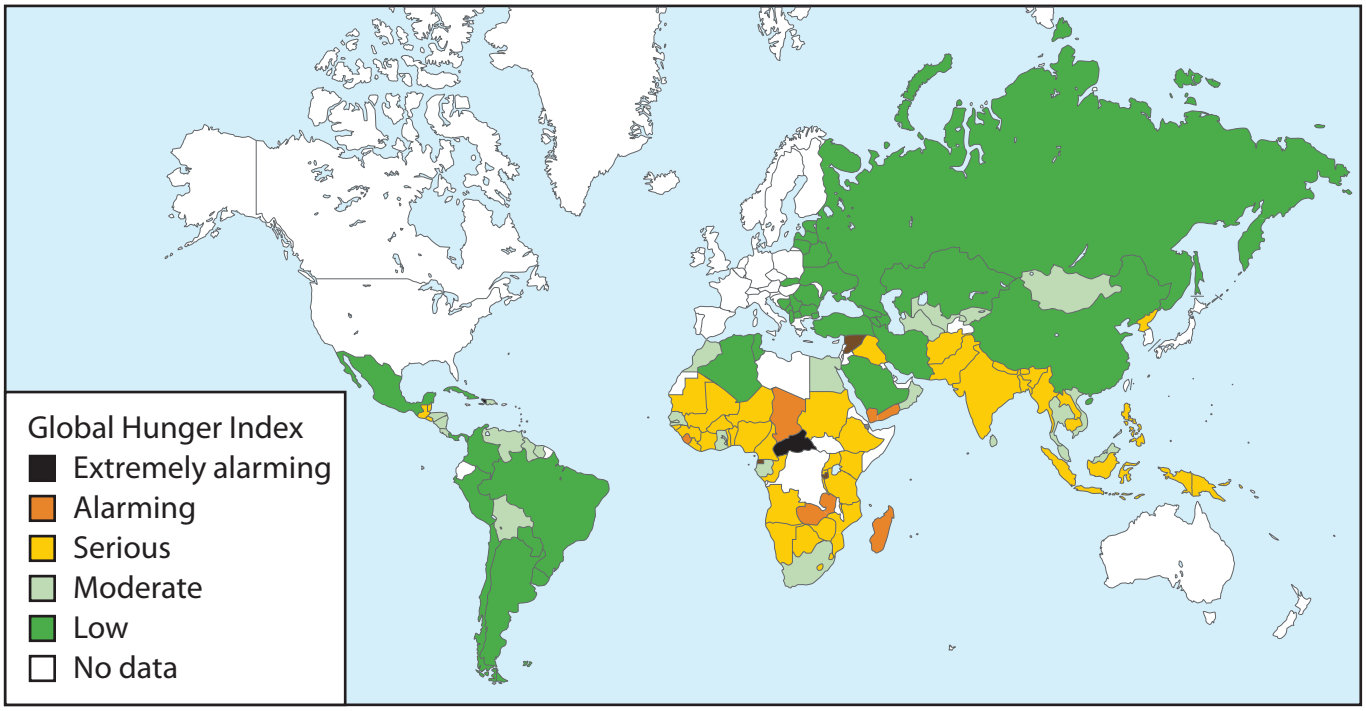

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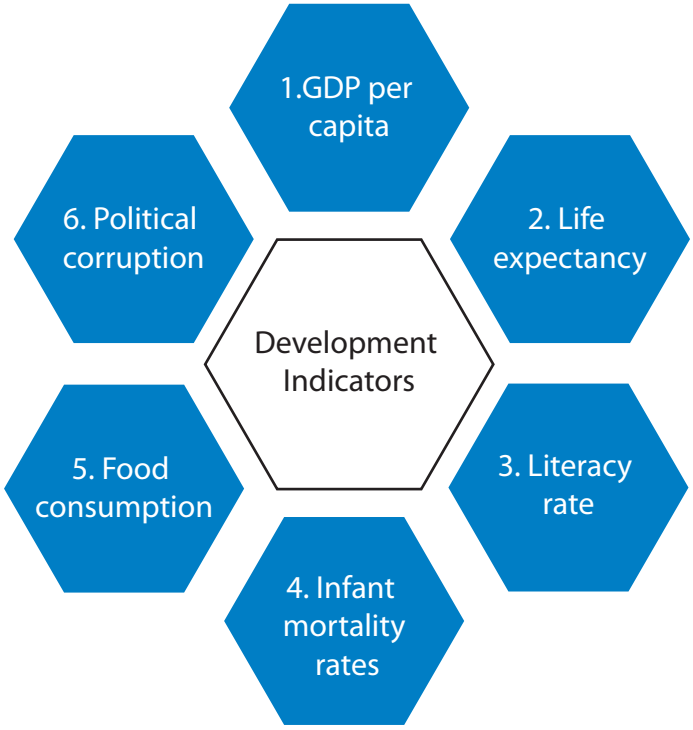

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