

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

--	--	--	--	--

Thursday 13 June 2019

Morning (Time: 1 hour 45 minutes)

Paper Reference **4GE1/02**

Geography

Paper 2: Human Geography

You must have:

Resource Booklet (enclosed), calculator

Total Marks

--

Instructions

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

Information

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

Advice

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

Turn over ►

P59840A

©2019 Pearson Education Ltd.

1/1/1/1/1/1/1/1



P 5 9 8 4 0 A 0 1 4 8


Pearson

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) Identify what is meant by an **economic sector**.

(1)

<input type="checkbox"/>	A the chain of production in manufacturing
<input type="checkbox"/>	B an economic shift in employment
<input type="checkbox"/>	C a classification system for types of employment
<input type="checkbox"/>	D a classification of employment structures

(b) Identify the economic sector that includes agriculture as an activity.

(1)

<input type="checkbox"/>	A quaternary
<input type="checkbox"/>	B tertiary
<input type="checkbox"/>	C secondary
<input type="checkbox"/>	D primary

(c) Define the term **raw material**.

(1)

.....

.....



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

Suggest **one** piece of evidence that shows there is informal employment in this photograph.

(2)

.....
.....
.....
.....

(e) State **one** example of a renewable energy resource.

(1)

.....
-------	-------	-------

(f) Explain **two** reasons why the production of energy varies between countries.

(4)

1
.....
.....
.....
2
.....
.....
.....



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

Suggest **one** reason for the projected increase in energy demand in Asia.

(3)

.....
.....
.....
.....
.....
.....

(h) For a named developing **or** emerging country, explain **two** ways the increasing demand for energy has created problems.

(4)

Named developing or emerging country

1
.....
.....
.....
2
.....
.....
.....

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



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

Analyse the reasons for changes in primary and quaternary employment.

(8)



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

(Total for Question 1 = 25 marks)



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

2 Rural environments.

- (a) Identify the meaning of the term **NGO**.

(1)

<input type="checkbox"/>	A non-governmental organisation
<input type="checkbox"/>	B non-global organisation
<input type="checkbox"/>	C non-geographically organised
<input type="checkbox"/>	D non-global operation

- (b) Define the term **negative multiplier effect**.

(1)

.....

.....

- (c) Identify **one** example of a global biome.

(1)

<input type="checkbox"/>	A pond
<input type="checkbox"/>	B moorland
<input type="checkbox"/>	C salt marsh
<input type="checkbox"/>	D tundra

- (d) Study Figure 2a in the Resource Booklet.

Suggest **one** piece of evidence from the photograph that shows this farm has diversified.

(2)

.....

.....

.....

.....



P 5 9 8 4 0 A 0 3 4 8

(e) State **one** other type of rural or farm diversification.

(1)

.....

.....

(f) Explain **two** factors that have led to changes in rural areas in a named developed country.

(4)

Named developed country

1

.....

.....

.....

2

.....

.....

.....

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

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

(3)

.....

.....

.....

.....

.....

.....

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



(4)

Group or organisation 1

Analyse how exploiting natural ecosystems can affect their goods and services.

(8)



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

(Total for Question 2 = 25 marks)



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

3 Urban environments.

- (a) Identify the meaning of the term **counter-urbanisation**.

(1)

<input type="checkbox"/>	A increasing proportion of people living in urban areas
<input type="checkbox"/>	B population movement from one country to another
<input type="checkbox"/>	C increasing population growth on the edge of urban areas
<input type="checkbox"/>	D population movement from urban areas to the countryside

- (b) Define the term **segregation**.

(1)

.....

.....

- (c) Identify the meaning of the term **megacity**.

(1)

<input type="checkbox"/>	A a very large urban area
<input type="checkbox"/>	B a city with a population over 1 million
<input type="checkbox"/>	C a city with a population over 10 million
<input type="checkbox"/>	D a very large rural area

- (d) Study Figure 3a in the Resource Booklet.

Suggest **one** piece of evidence from the photograph that shows this area has challenges associated with rapid urbanisation.

(2)

.....

.....

.....

.....



P 5 9 8 4 0 A 0 1 1 4 8

(e) State **one** group or organisation involved in managing urban challenges.

(1)

.....

(f) Explain **two** ways in which urban challenges have been managed.

(4)

1

.....

.....

.....

2

.....

.....

.....

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

Explain how **one** factor affects quality of life.

(3)

Factor selected

.....

.....

.....

.....

.....

.....



[illegible]

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA		DO NOT WRITE IN THIS AREA		DO NOT WRITE IN THIS AREA
---------------------------	--	---------------------------	--	---------------------------

[illegible]

DO NOT WRITE IN THIS AREA	
DO NOT WRITE IN THIS AREA	

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

[illegible][illegible]

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

(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.

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

State the title of your geographical enquiry.

.....

(a) (i) State **one** type of sampling you used in your geographical enquiry.

(1)

.....

(ii) Explain **one** way this sampling technique helped you to collect reliable data or information.

(2)

.....

.....

.....

.....

(b) Explain **one** way you managed a risk associated with your primary data collection.

(2)

.....

.....

.....

.....



P 5 9 8 4 0 A 0 1 1 4 8

(c) Draw an annotated sketch map or annotated diagram to show how you selected locations to collect your fieldwork data.

(3)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



(d) Explain **two** limitations of the method that you used to collect **qualitative data**.

(4)

1

.....

.....

.....

.....

2

.....

.....

.....

.....



P 5 9 8 4 0 A 0 1 1 4 8

- (e) Study Figures 4a, 4b and 4c in the Resource Booklet. They show three different data presentation techniques from a student's investigation into developing energy resources.

The aim of the student's enquiry was to investigate the attitudes towards the plans for a new biomass power station in a rural part of Ireland.

The student used three different presentation techniques to help understand people's opinions towards the proposed energy development.

Evaluate how effective the techniques were in presenting the data and information collected.

(8)



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

(Total for Question 4 = 20 marks)



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

5 Investigating rural environments.

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

State the title of your geographical enquiry.

(a) (i) State **one** type of sampling you used in your geographical enquiry.

(1)

(ii) Explain **one** way this sampling technique helped you to collect reliable data or information.

(2)

(b) Explain **one** way you managed a risk associated with your primary data collection.

(2)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



(c) Draw an annotated sketch map or annotated diagram to show how you selected locations to collect your fieldwork data.

(3)



P 5 9 8 4 0 A 0 1 1 4 8

(d) Explain **two** limitations of the method that you used to collect **qualitative data**.

(4)

1

2

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

(8)



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

(Total for Question 5 = 20 marks)



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

6 Investigating urban environments.

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

State the title of your geographical enquiry.

(a) (i) State **one** type of sampling you used in your geographical enquiry.

(1)

(ii) Explain **one** way this sampling technique helped you to collect reliable data or information.

(2)

(b) Explain **one** way you managed a risk associated with your primary data collection.

(2)



P 5 9 8 4 0 A 0 1 1 4 8

(c) Draw an annotated sketch map or annotated diagram to show how you selected locations to collect your fieldwork data.

(3)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



(d) Explain **two** limitations of the method that you used to collect **qualitative data**.

(4)

1

.....

.....

.....

.....

2

.....

.....

.....

.....



P 5 9 8 4 0 A 0 1 1 4 8

- (e) Study Figures 6a, 6b and 6c in the Resource Booklet. They show three different data presentation techniques from a student's investigation into the changing use of urban environments.

The aim of the student's enquiry was to investigate the attitudes towards the plans for a new urban waste incinerator in Copenhagen, Denmark, on the edge of the city.

The student used three different presentation techniques to help understand people's opinions towards the proposed urban waste incinerator development.

Evaluate how effective the techniques were in presenting the data and information collected.

(8)



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

(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) State **one** example of a greenhouse gas.

(1)

- (ii) Identify the meaning of the term **enhanced greenhouse effect**.

(1)

<input type="checkbox"/>	A cooling of the Earth's atmosphere resulting from human activities
<input type="checkbox"/>	B warming of the Earth's atmosphere resulting from human activities
<input type="checkbox"/>	C additional heat trapped in the Earth's atmosphere as a result of natural effects
<input type="checkbox"/>	D greenhouse gases naturally present in the Earth's atmosphere causing warming

- (iii) Identify the meaning of the term **Milankovitch cycle**.

(1)

<input type="checkbox"/>	A cyclical movement of the Earth's orbit around the Sun
<input type="checkbox"/>	B differences in the amount of energy emitted from the Sun
<input type="checkbox"/>	C additional heat trapped in the Earth's atmosphere
<input type="checkbox"/>	D seasonal movement of the Sun in different orbits



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

Identify the **two** countries labelled in Figure 7a with the most and least CO₂ emissions.

(2)

Most

.....

Least

.....

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

(4)

1

.....

.....

.....

2

.....

.....

.....

(c) Explain **two** negative effects of deforestation on people in fragile environments.

(4)

1

.....

.....

.....

2

.....

.....

.....



P 5 9 8 4 0 A 0 1 1 4 8

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

(i) Calculate the range in CO₂ emissions in **India** between 1960 and 2015.

You must show all your workings in the space below.

(2)

(ii) Identify the trends in CO₂ emissions in China, 1960-2015.

(2)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



Turn over ►

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

· DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

(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 **international migration**.

(1)

<input type="checkbox"/>	A people who cross a regional boundary within a country
<input type="checkbox"/>	B people going on holiday to an overseas destination
<input type="checkbox"/>	C people moving across international borders
<input type="checkbox"/>	D people moving from the city to the countryside

(ii) Identify the meaning of the term **IMF**.

(1)

<input type="checkbox"/>	A International Monetary Foundation
<input type="checkbox"/>	B Internal Money Fund
<input type="checkbox"/>	C International Monetary Fund
<input type="checkbox"/>	D Interregional Monetary Foundation

(b) Define the term **push factor**.

(1)

.....

.....



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

Identify the **two** countries labelled in Figure 8a with the highest and lowest internet speeds.

(2)

Highest

.....

Lowest

.....

(ii) Suggest **two** reasons for the pattern shown on Figure 8a.

(4)

1

.....

.....

.....

2

.....

.....

.....

(d) Explain **two** positive impacts of migration for destination areas.

(4)

1

.....

.....

.....

2

.....

.....

.....



P 5 9 8 4 0 A 0 1 1 4 8

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

- (i) Calculate the range in the 'Ease of doing business' index for Sub-Saharan Africa.

You must show all your workings in the space below.

(2)

- (ii) Identify the differences in the 'Ease of doing business' index between Europe and Central Asia and Sub-Saharan Africa.

(2)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

[illegible]

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

P 5 9 8 4 0 A 0 1 0 4 8

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

41

P 5 9 8 4 0 A 0 1 1 4 8

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

9 Development and human welfare.

(a) (i) Identify the meaning of the term **quality of life**.

(1)

<input type="checkbox"/>	A a person's well-being in terms of health and happiness
<input type="checkbox"/>	B a person's level of deprivation
<input type="checkbox"/>	C a person's cultural identity
<input type="checkbox"/>	D a person's type of employment and income level

(ii) Identify the meaning of the term **inequality**.

(1)

<input type="checkbox"/>	A poor access to resources and services
<input type="checkbox"/>	B good access to resources and services
<input type="checkbox"/>	C equal access to resources and services
<input type="checkbox"/>	D unequal access to resources and services

(b) Define the term **development gap**.

(1)

.....

.....

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



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

Identify **two** countries labelled in Figure 9a with the highest and lowest inequality.

(2)

Highest

.....

Lowest

.....

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

(4)

1

.....

.....

.....

2

.....

.....

.....



P 5 9 8 4 0 A 0 1 1 4 8

(d) Explain how **two** international strategies have attempted to reduce uneven development.

(4)

1

.....

.....

.....

.....

2

.....

.....

.....

.....

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

(i) Calculate the range in HDI for Thailand, 1980-2016.

You must show all your workings in the space below.

(2)

(ii) Describe how HDI has changed in Tunisia, 1980-2016.

(2)

.....

.....

.....

.....

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

· DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA.

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

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



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

BLANK PAGE



Pearson Edexcel International GCSE (9–1)

Thursday 13 June 2019

Morning

Paper Reference **4GE1/02**

Geography

Paper 2: Human Geography

Resource Booklet

Do not return the Resource Booklet with the question paper.

Turn over ►

P59840A

©2019 Pearson Education Ltd.

1/1/1/1/1/1/1/1/1



Pearson



Figure 1a

Examples of informal employment in Bangladesh

(Source: © David Holmes)

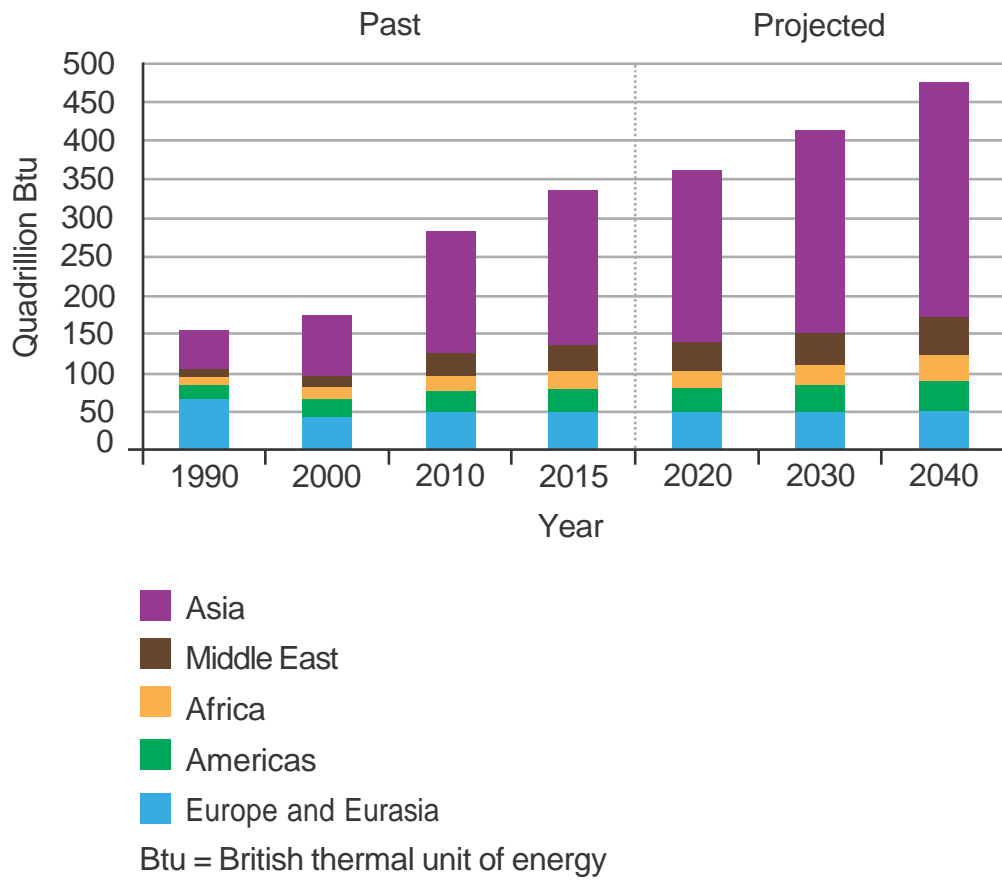


Figure 1b
Past and projected energy consumption for selected regions

(Source: from <https://www.eia.gov/>)

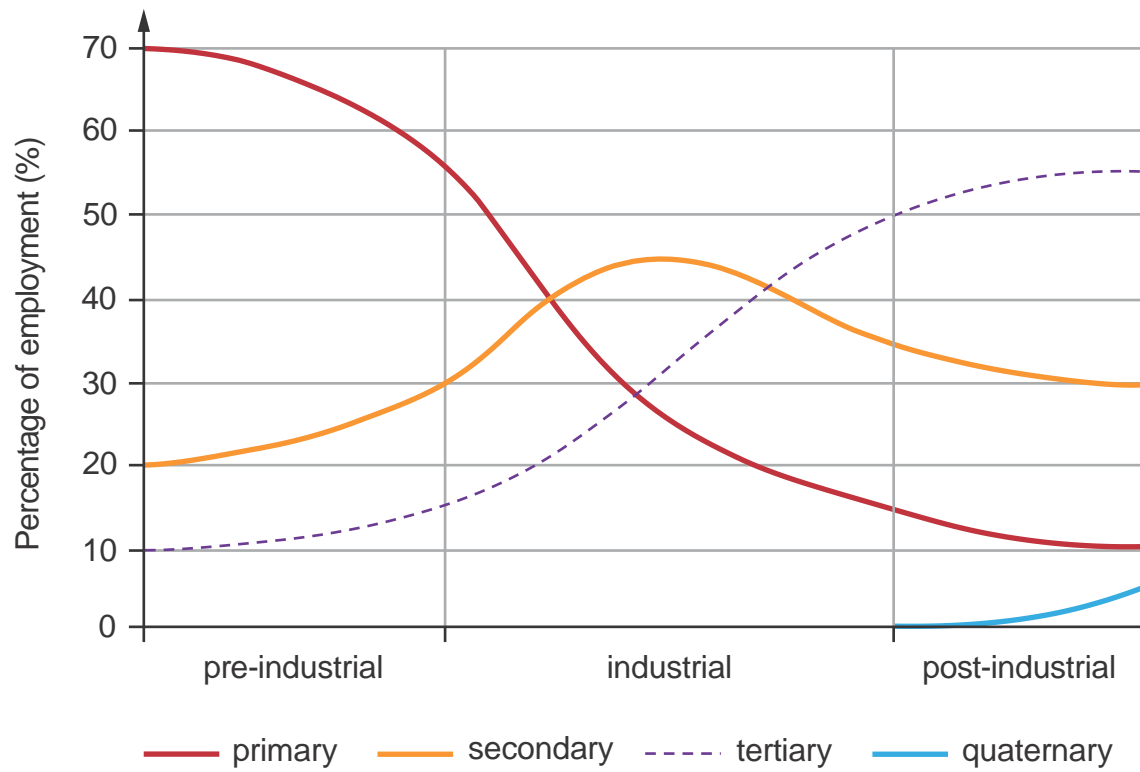


Figure 1c
The Clark Fisher model



Figure 2a

An example of arable farm diversification, south west England

(Source: © David Holmes)

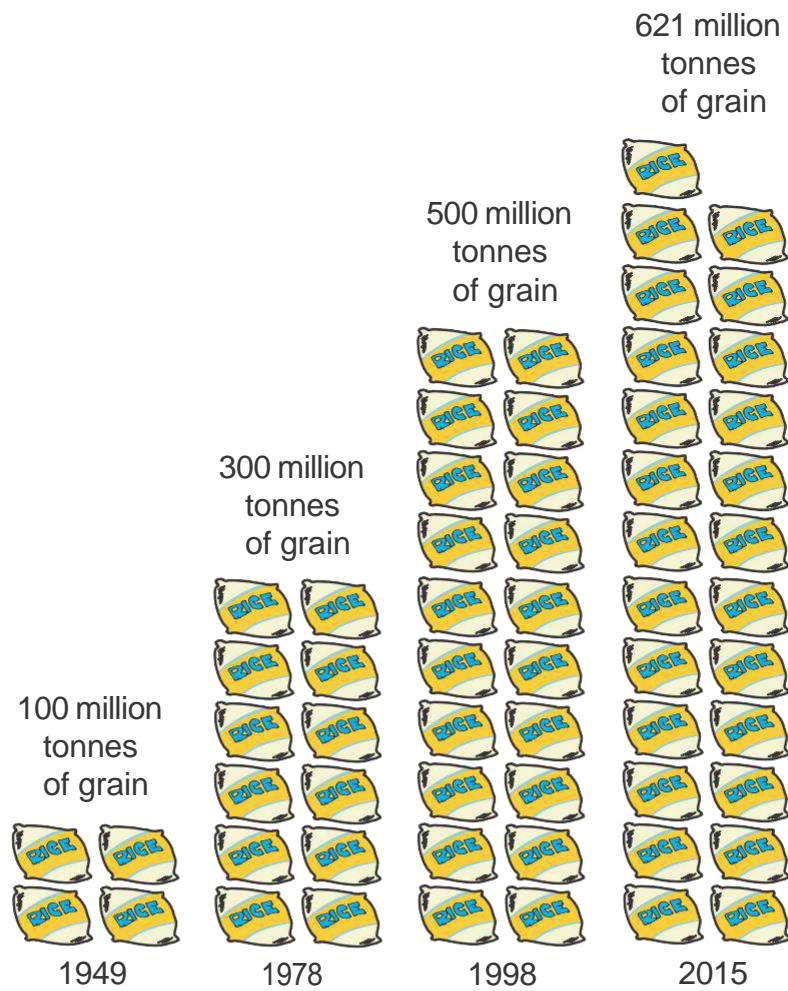


Figure 2b

Changes in China's grain production, 1949-2015

(Source: © Reuters)

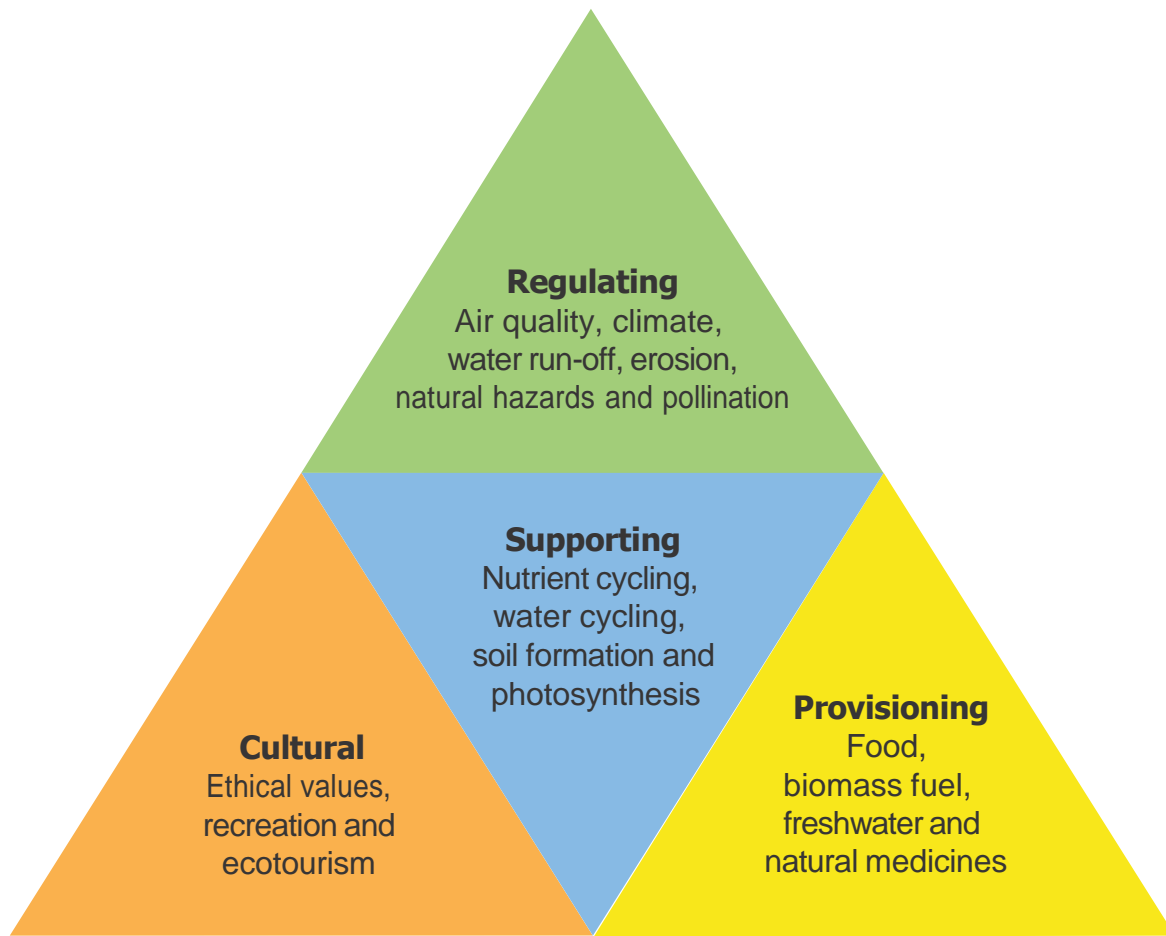


Figure 2c

Examples of natural ecosystems, goods and services

(Source: from <https://askabiologist.asu.edu/explore/biomes>)



Figure 3a

An urban area in part of Nairobi, Kenya

(Source: © David Holmes)



Figure 3b
Six factors that can influence quality of life

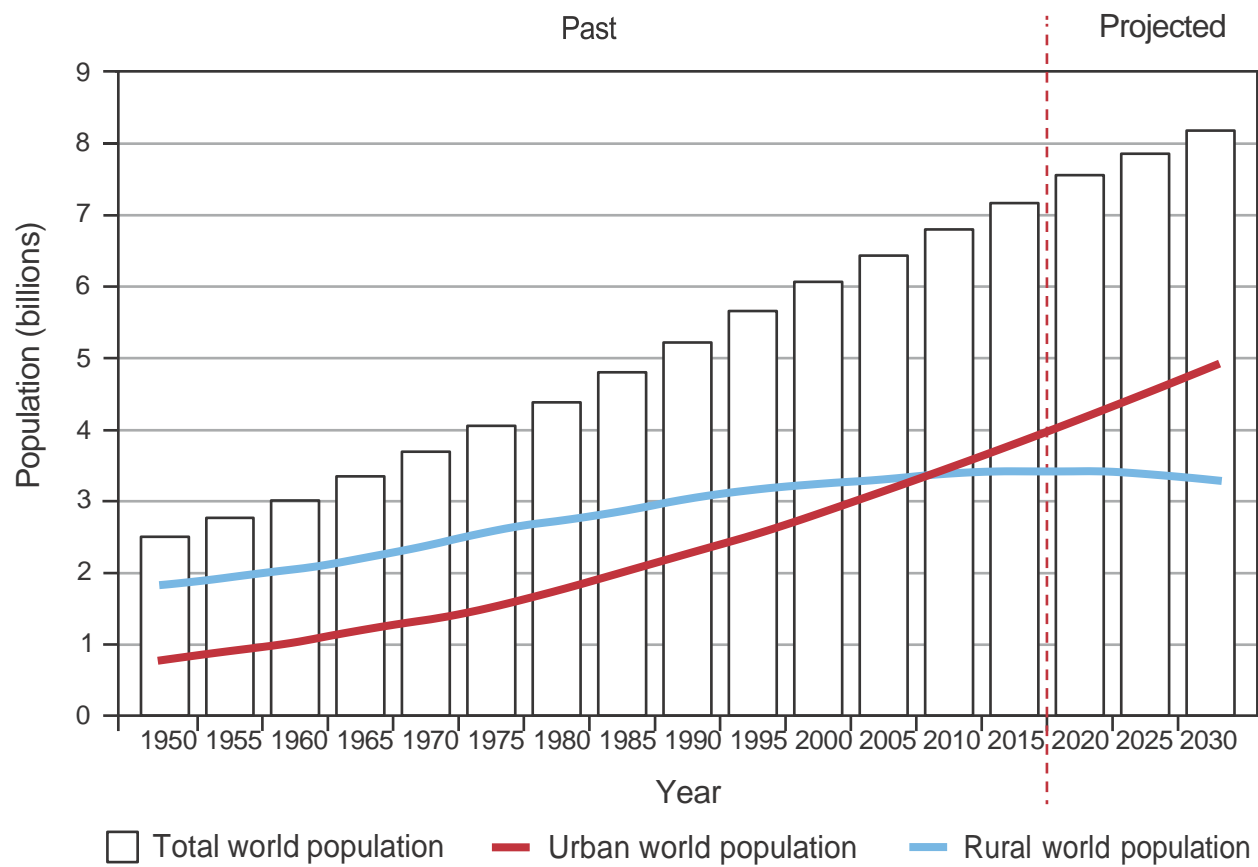


Figure 3c

Changing global urban and rural population estimates: past and projected

(Source: from <http://www.un.org/esa/population/publications/WUP2005/2005wup.htm>)

Question	People's views				Total
	Strongly disagree	Slight disagreement	Not sure	Slight agreement	
A				3	3
B				7	7
C	2	5	3		20
D	6	1	3		10
E	2	2	2	2	8
F		5	5		10
G	1	6	3		10
H			1	2	9

Figure 4a

Results from a survey of people's views on a proposed biomass power plant



Figure 4b

Photographic results evidence lorry traffic on small roads

(Source: © Kumar Sriskandan / Alamy Stock Photo)



Figure 4c

Presentation of attitudes towards the biomass power plant

Question number	People's views				Total
	Strongly disagree	Slight disagreement	Not sure	Slight agreement	
1				3	3
2				7	7
3	2	5	3		20
4	6	1	3		10
5	2	2	2	2	8
6		5	5		10
7	1	6	3		10
8			1	2	9

Figure 5a

Results from a survey of people's views on a proposed new tourist development



Figure 5b

Photographic results evidence lorry traffic on small roads

(Source: © Kumar Sriskandan / Alamy Stock Photo)



Figure 5c

Presentation of attitudes towards the tourist development

Question number	People's views				Total
	Strongly disagree	Slight disagreement	Not sure	Slight agreement	
1				3	3
2				7	7
3	2	5	3		20
4	6	1	3		10
5	2	2	2	2	8
6		5	5		10
7	1	6	3		10
8			1	2	9

Figure 6a

Results from a survey of people's views on a new waste incinerator



Figure 6b

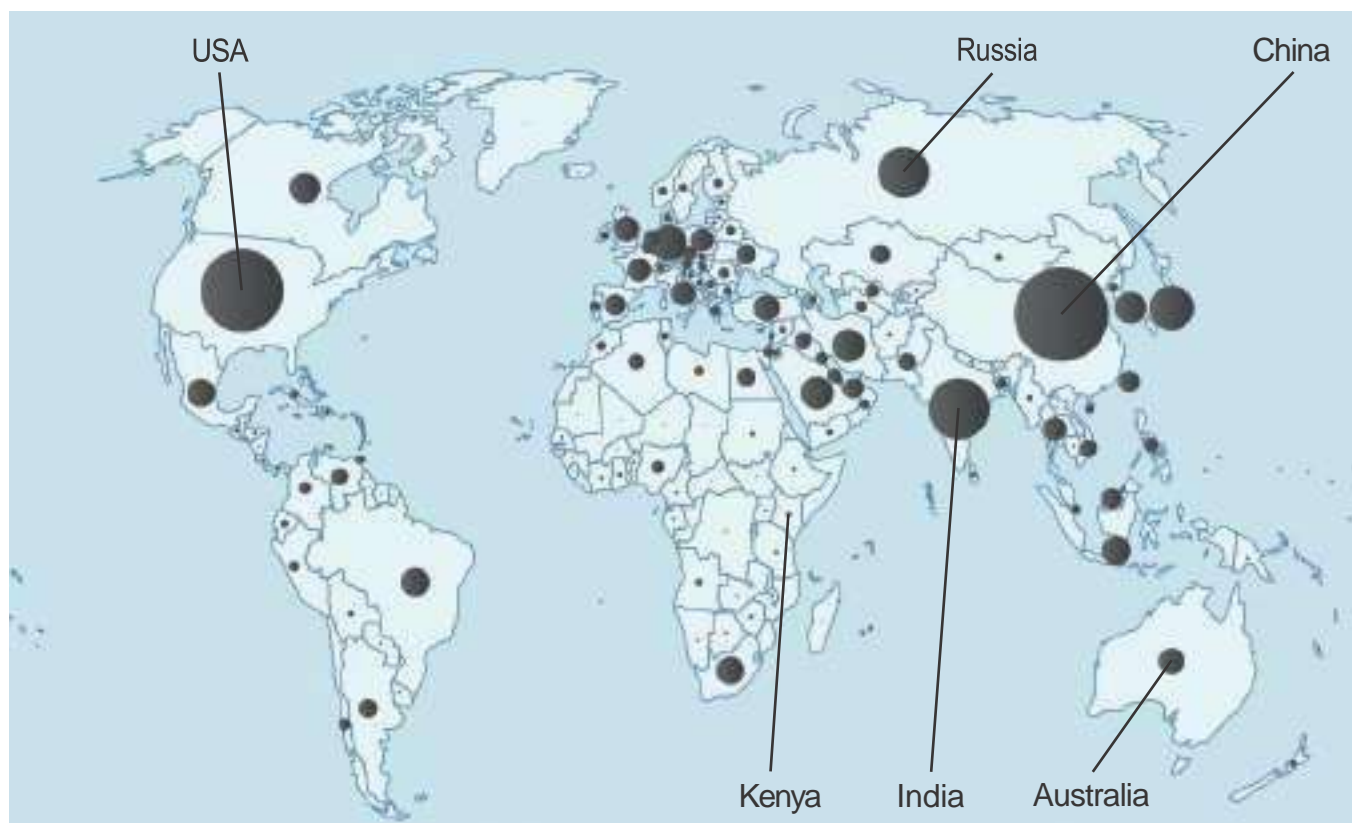
Photographic results evidence lorry traffic on small roads

(Source: © Kumar Sriskandan / Alamy Stock Photo)



Figure 6c

Presentation of attitudes towards the waste incinerator



All values are MtCO₂ = Metric tonnes of carbon dioxide equivalent

Figure 7a

Map of global CO₂ emissions per country in 2016 (carbon footprint)

(Source: from <http://www.globalcarbonatlas.org/en/CO2-emissions>)

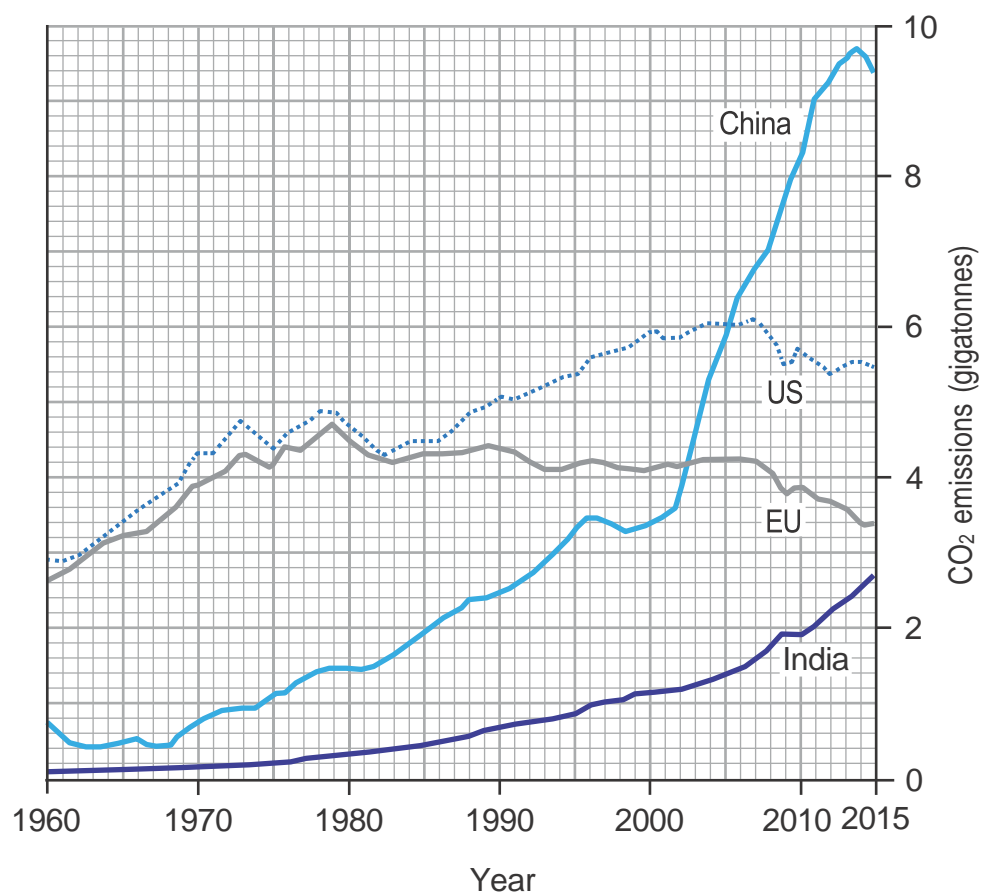


Figure 7b

CO₂ emissions (gigatonnes) for selected countries and regions, 1960 - 2015

(Source: from <https://www.economist.com/blogs/graphicdetail/2015/12/climate-change>)



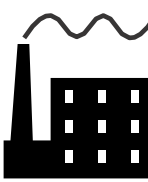
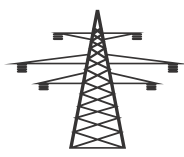
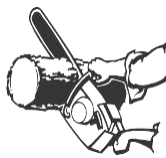
Human activities		Drivers (causes) of climate change
	Air travel	Fossil fuel combustion from increasing global air travel produces CO ₂ and nitrous dioxide.
	Livestock farming	Cows and sheep produce large amounts of methane when they digest their food.
	Industry	Energy is used in both the making and distribution of manufactured goods. These have a high global carbon footprint.
	Electrical energy consumption	Global electricity consumption has risen from increasing wealth and changes in people's lifestyles. A high proportion of electricity is produced from non-renewable sources.
	Deforestation	Forests help balance gases in the atmosphere. Deforestation upsets this process, releasing more CO ₂ into the atmosphere.

Figure 7c
Selected human activities as drivers of climate change

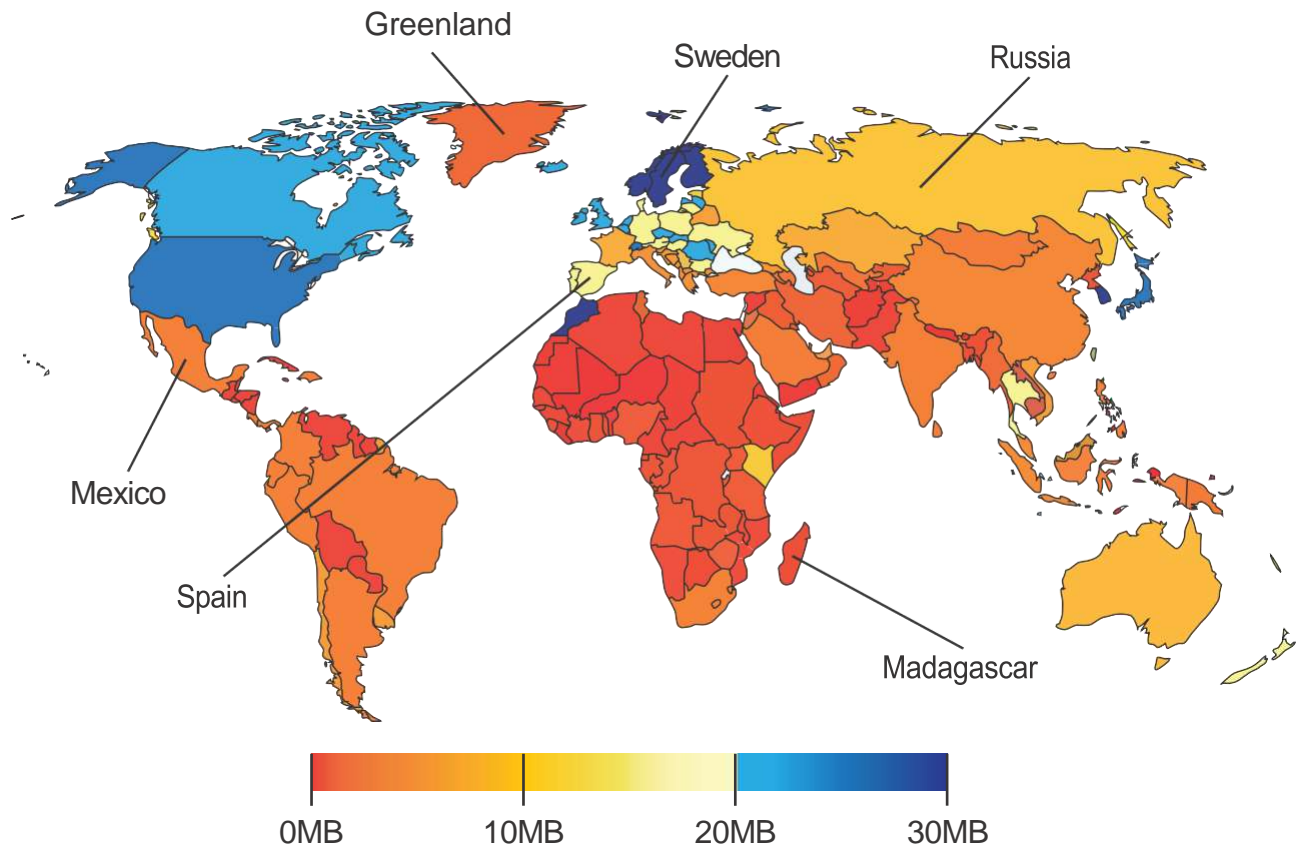


Figure 8a

Average global internet speeds Megabytes (MB/sec)

(Source: from <https://www.akamai.com/us/en/about/our-thinking/state-of-the-internet-report/state-of-the-internet-connectivity-visualization.jsp>)

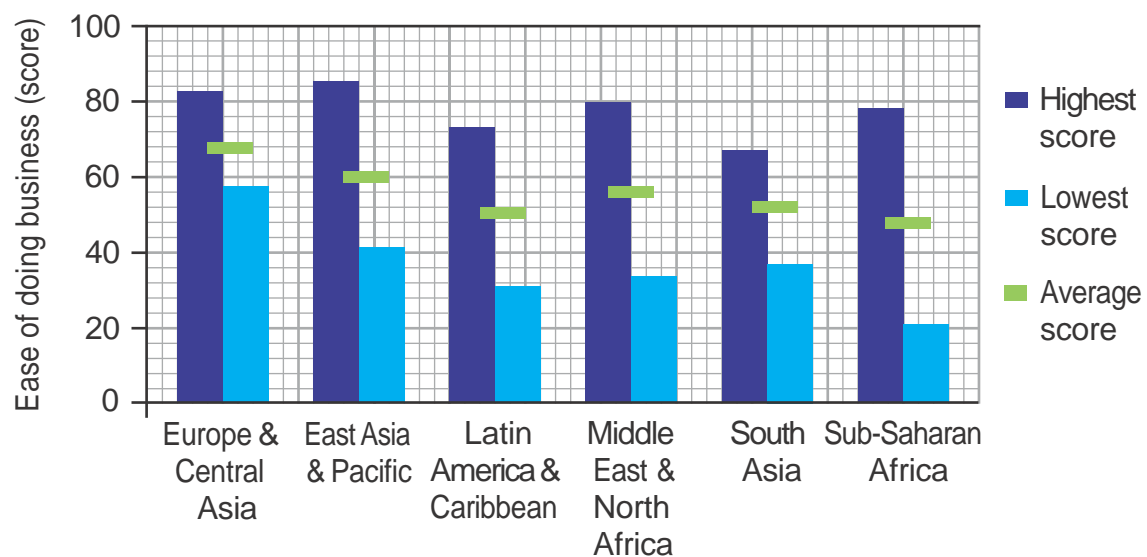


Figure 8b

Ease of doing business index, by world region

(Source: Crown Copyright)


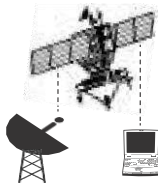
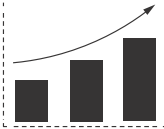


Activities		Drivers (causes) of globalisation
	Transport technology	Range and frequency of aircraft routes mean that it is now much cheaper and easier to travel.
	Communication and information technology	Improvements in technology mean that people and companies can be better connected to their customers.
	Global businesses (TNCs)	Companies have complex logistical operations and supply chains, which now operate at a global scale due to better connectivity.
	Global institutions	A range of institutions promote and manage world trade, improve governance and attempt to raise living standards.
	Flexible labour force	People adapt to work in different businesses and in different locations.

Figure 8c
Selected activities as drivers of globalisation

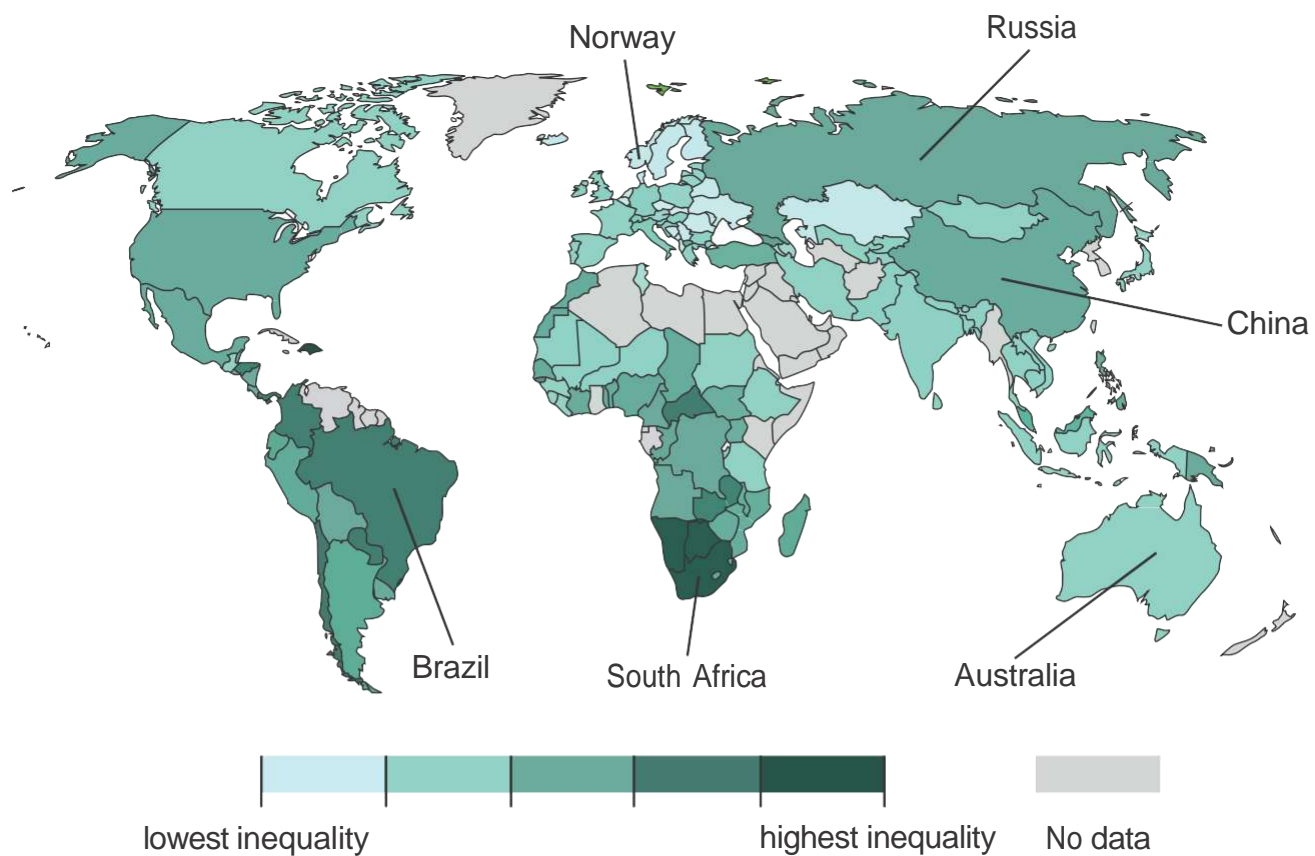


Figure 9a

Global index of inequality, 2017

(Source: from <https://www.theguardian.com/inequality/datablog/2017/apr/26/inequality-index-where-are-the-worlds-most-unequal-countries>)

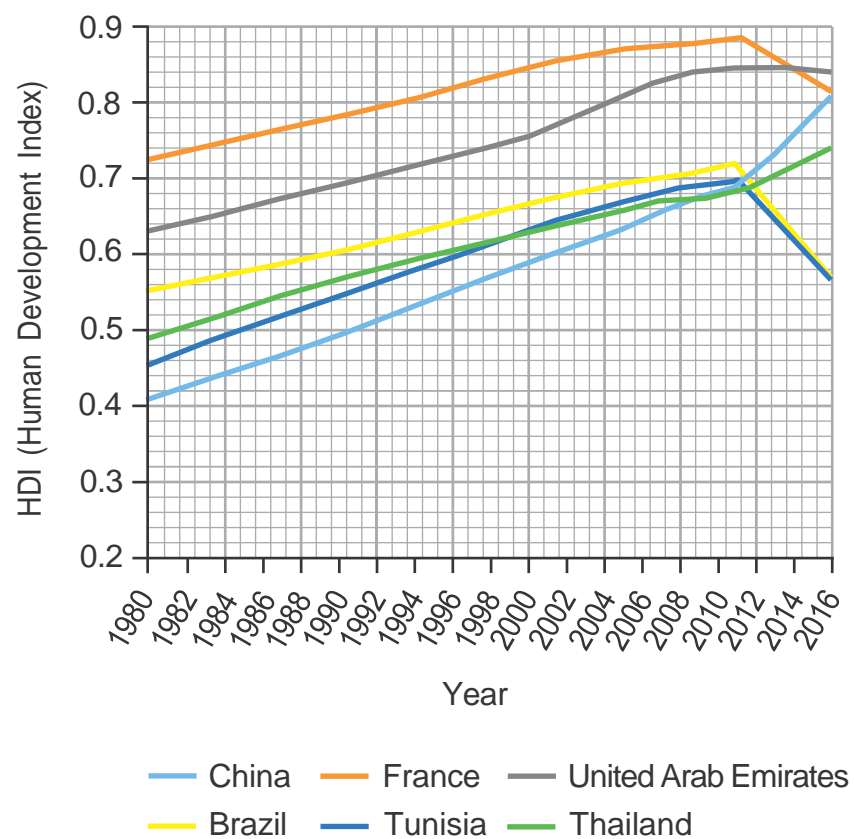


Figure 9b

Regional trends in HDI for selected countries, 1980-2016






Cause		Drivers (causes) of global inequality
	Climate change	Low income countries will experience the biggest effects of human-induced climate change over the next century: sea level rises, stronger cyclones, more unpredictable rains, and longer heatwaves.
	Food and water security	Hurricanes and drought combined with poor soils may mean that some places have low food security. In extreme instances, this weakens and sometimes kills people.
	Resource availability	Countries vary in the amount of natural resources they have to both use and export. Countries with few natural resources find it hard to create products that can be sold on world markets.
	Governments	Good governance can promote and help manage inter country trade and aid, for example to help raise living standards and improve quality of life.
	Demography	There are several factors involved, including fertility, mortality and immigration. These will have impacts on population age structures, for example.

Figure 9c
Selected causes of variations in global development



BLANK PAGE



BLANK PAGE



BLANK PAGE

