Write your name here

Surname

Other names

Edexcel GCE

Centre Number

Candidate Number

Geography
**Advanced Subsidiary
Unit 1: Global Challenges**

Wednesday 18 January 2012 – Morning
Time: 1 hour 30 minutes

Paper Reference

6GE01/01

You must have:
Resource Booklet (enclosed)

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.
- Answer **ALL** questions in Section A and **ONE** question in Section B.
- Answer the questions in the spaces provided
  – *there may be more space than you need*.

Information

- The total mark for this paper is 90.
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question*.
- Questions labelled with an **asterisk** (*****) are ones where the quality of your written communication will be assessed
  – *you should take particular care on these questions with your spelling, punctuation and grammar, as well as the clarity of expression*.

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Spend approximately one hour on Section A and 30 minutes on Section B.
- Check your answers if you have time at the end.

Turn over

P39931A0120

PEARSON

Answer ALL questions.

You must use the Resource Booklet.
You are advised to spend approximately one hour on Section A.

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 ⊠.

1 Study Figure 1.

(a) Identify which location is likely to have the lowest disaster risk and give a reason for your choice.

(2)

Location ....

Reason

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(b) Suggest **two** reasons why cities in California sometimes suffer from flooding.

(4)

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(c) Explain why California often experiences geophysical hazard events.

(5)

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(Total for Question 1 = 11 marks)

2 Study Figure 2.

(a) What change in albedo results from the melting of Arctic sea ice?

Put a cross in the correct box.

(1)

☒ **A** 82% fall

☒ **B** 82% rise

☒ **C** 58% fall

☒ **D** 17% rise

☒ **E** 7% fall

(b) Explain how changes in albedo in the Arctic may contribute to accelerated global warming.

(3)

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(c) Identify **two** direct impacts of Arctic sea ice melting.

(2)

    W   Disruption to Arctic food chains

    X   Ocean temperature change

    Y   Global sea-level rise

    Z   Release of methane gas

1 ....

2 ....

(d) Explain why some people could benefit from climatic change in the Arctic region.

(5)

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(Total for Question 2 = 11 marks)

3 Study Figure 3.

(a) Using data from Figure 3, compare the economic impact of a 3°C rise with a 7°C rise in global mean temperature.

(2)

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(b) With reference to Figure 3, suggest why some groups of people may experience greater economic losses than other groups of people.

(4)

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(c) Explain why the costs of climate change adaptation strategies keep rising.

(5)

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(Total for Question 3 = 11 marks)

4 Study Figure 4.

(a) (i) Describe how levels of connectivity vary for the countries shown.

(3)

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(ii) Suggest reasons for the variations you have described.

(3)

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(b) What term best describes a highly-connected place?

Put a cross in the correct box.

(1)

☒ **A** Suburb

☒ **B** Megacity

☒ **C** Shanty town

☒ **D** Million city

☒ **E** Global hub

(c) Explain how physical factors may have contributed to the growth of 'switched-on' and 'switched-off' places.

(5)

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(Total for Question 4 = 12 marks)

5 Study Figure 5.

(a) Which **two** non-eastern EU nations had below-average earnings in 2005?

Put a cross in the correct box.

(1)

- ☒ **A** Spain and Latvia
- ☒ **B** Spain and Portugal
- ☒ **C** Poland and Portugal
- ☒ **D** Latvia and Romania
- ☒ **E** Romania and Bulgaria

(b) What term best describes the movement of eastern European workers to the UK?

Put a cross in the correct box.

(1)

- ☒ **A** Post-colonial labour flow
- ☒ **B** Refugee flow
- ☒ **C** Retirement migration
- ☒ **D** Post-accession labour flow
- ☒ **E** Internal migration

(c) Suggest reasons why many eastern Europeans migrated to the UK in 2005 instead of to other countries.

(4)

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(d) Explain the social impacts of migration within Europe for host nations.

(4)

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(Total for Question 5 = 10 marks)

6 Study Figure 6.

(a) What will the gap between pension payouts and pension contributions be in 2060?

Put a cross in the correct box.

(1)

☒ **A** £80 billion

☒ **B** £62 billion

☒ **C** £52 billion

☒ **D** £30 billion

☒ **E** £28 billion

(b) Explain why the impacts of an ageing population vary from place to place in the UK.

(4)

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(c) Why does the UK's ageing population bring many economic challenges?

(5)

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(Total for Question 6 = 10 marks)

TOTAL FOR SECTION A = 65 MARKS

SECTION B

Answer ONE question in this section.

Use the evidence provided in the Resource Booklet and your own ideas.
You are advised to spend approximately 30 minutes on Section B.

*7 Study Figure 7.

(a) With reference to the factors shown, suggest how hazard vulnerability in a local area can be assessed.

(10)

(b) Explain the global distribution of **two** major hydro-meteorological hazard types.

(15)

(Total for Question 7 = 25 marks)

*8 Study Figure 8.

(a) Examine how historical data such as this can provide evidence for natural climate change.

(10)

(b) Explain why many scientists believe that human, rather than natural causes, may be more to blame for recent climate change.

(15)

(Total for Question 8 = 25 marks)

*9 Study Figure 9.

(a) Suggest why increasing numbers of people support green strategies such as this.

(10)

(b) Examine how globalisation can have both positive and negative effects on people.

(15)

(Total for Question 9 = 25 marks)

*10 Study Figure 10.

(a) Suggest why the arrival of newcomers can result in severe housing problems for megacities.

(10)

(b) Using examples, explain the causes of rural to urban migration that feed megacity growth.

(15)

(Total for Question 10 = 25 marks)

Indicate which question you are answering by marking a cross in the box ⊠. If you change your mind, put a line through the box ⊞ and then indicate your new question with a cross ⊠.

Chosen Question Number:

| Question 7 | ⊠ | Question 8 | ⊠ |
| Question 9 | ⊠ | Question 10 | ⊠ |

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TOTAL FOR SECTION B = 25 MARKS
TOTAL FOR PAPER = 90 MARKS

Edexcel GCE

Geography
Advanced Subsidiary
Unit 1: Global Challenges
RESOURCE BOOKLET

Wednesday 18 January 2012 – Morning

Do not return the Resource Booklet with the question paper.

Turn over ▶

P39931A

PEARSON

The following resources relate to Questions 1–6.

Figure 1 **Four locations in California**
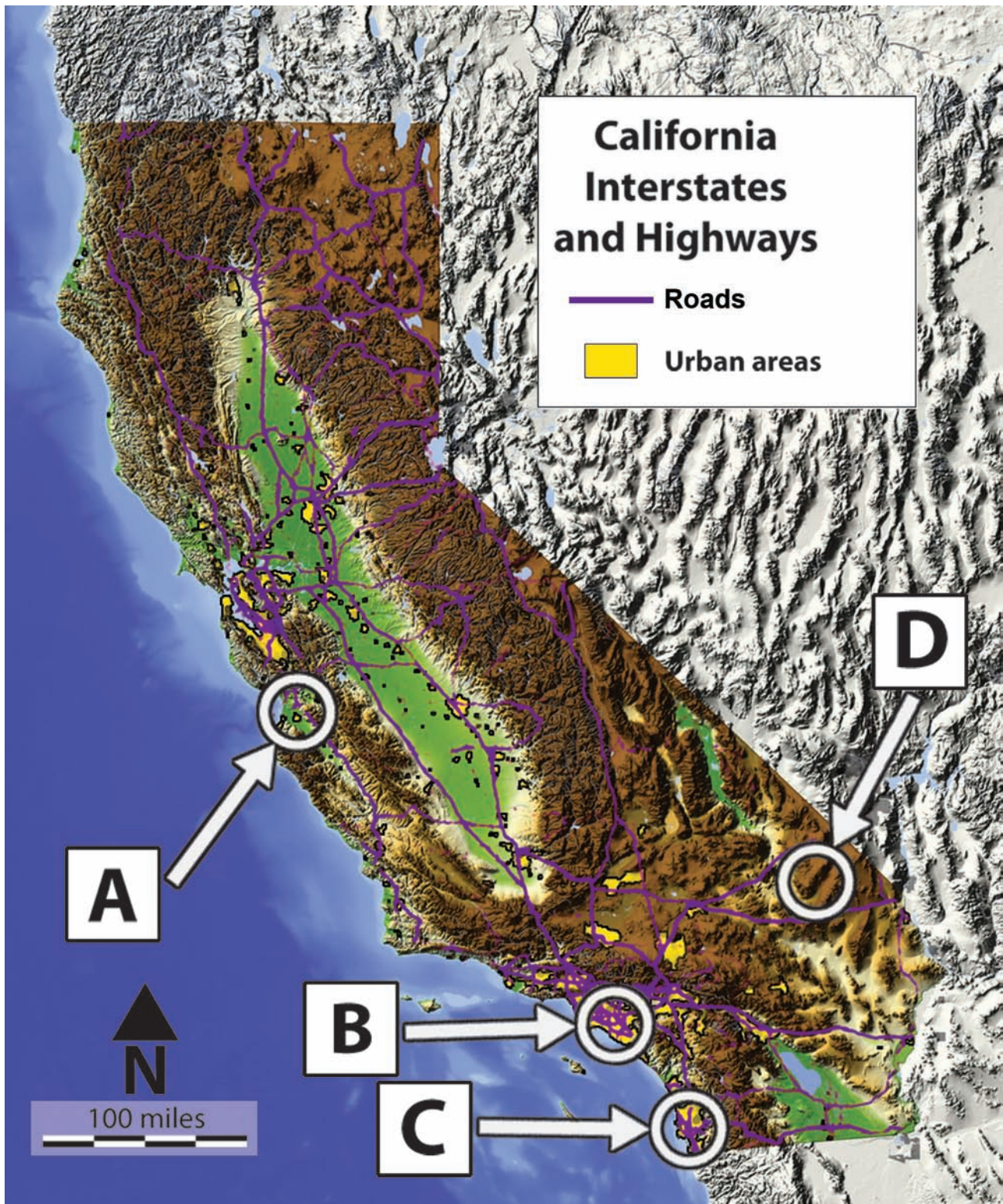
(Source: USGS)

Figure 2   **Albedo values for snow, ice and water**
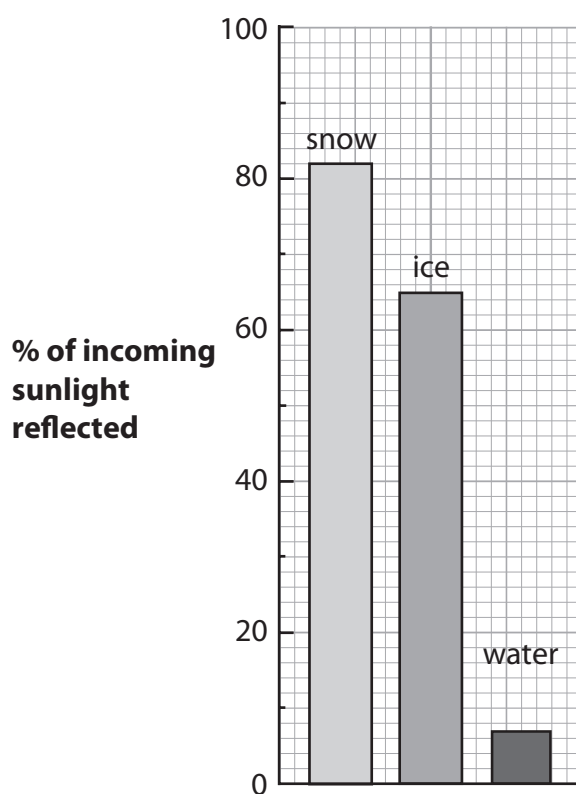
(Source: Hugo Ahlenius, UNEP/GRID-Arendal, based on material from (1) D.K. Perovich (2) Pegau, W.S. and Paulson, C.A.)

Figure 3   **Predicted impact of climate change on global GDP per capita (unless action is taken)**
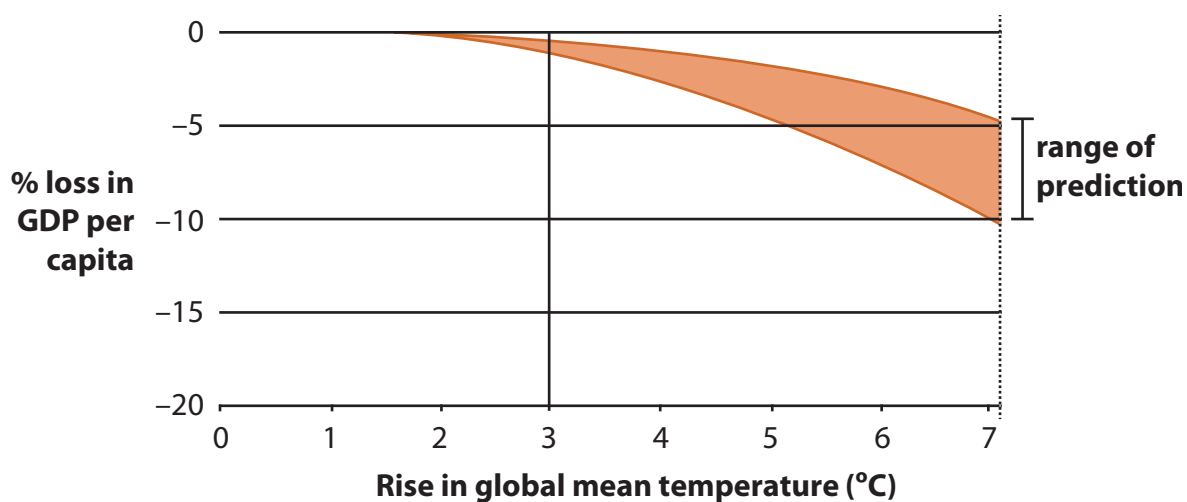
(Source: Stern Review, 2006)

Figure 4 **Fixed landline and mobile telephone connectivity in North America and South America in 2008**

Canada

USA

Mexico

Peru

Brazil

Key:

Mobile

Fixed landline

50

200

Telephones per hundred people

Argentina
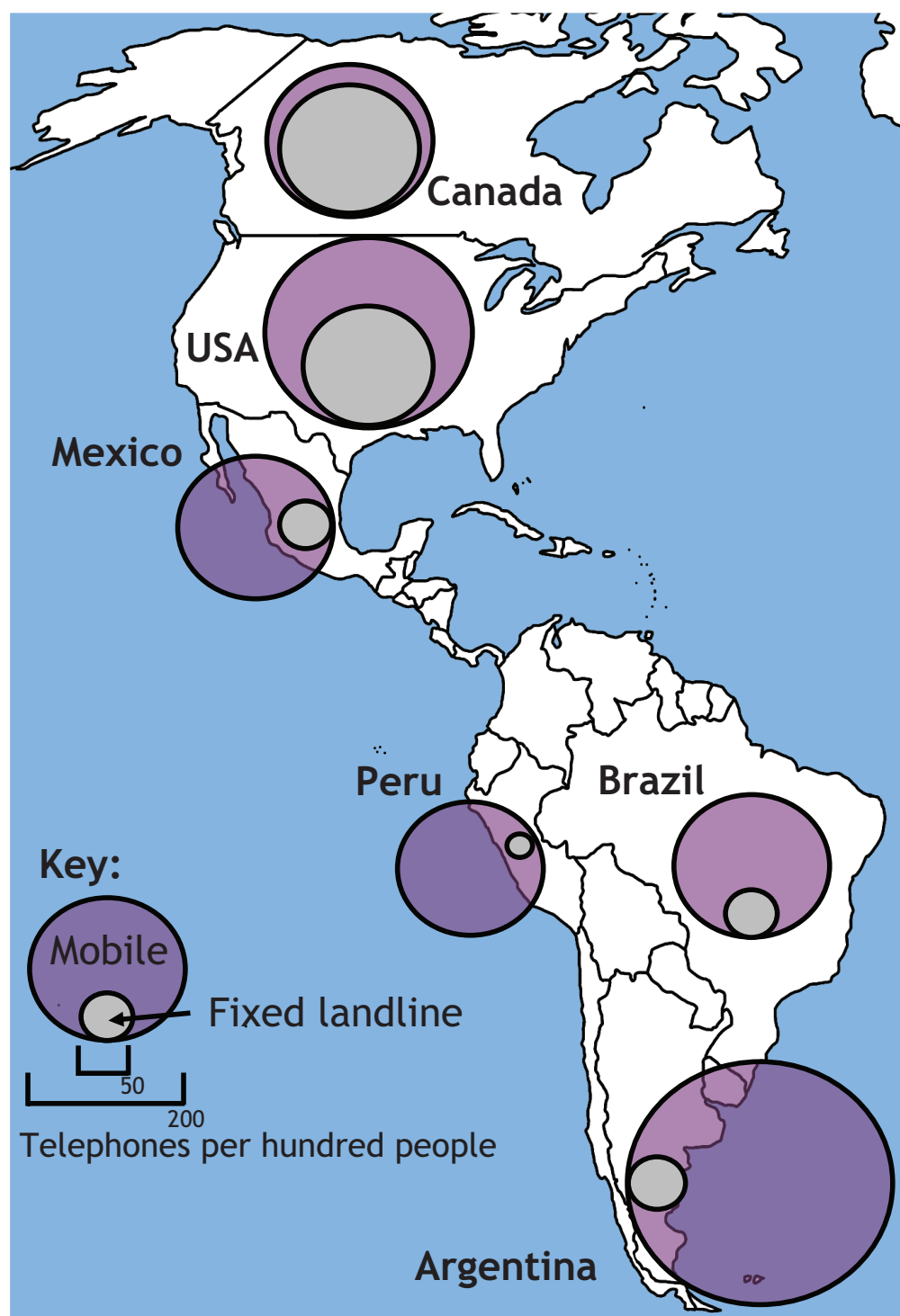
Figure 5   **Average annual earnings (in Euros) in 2005 for workers in some European countries**
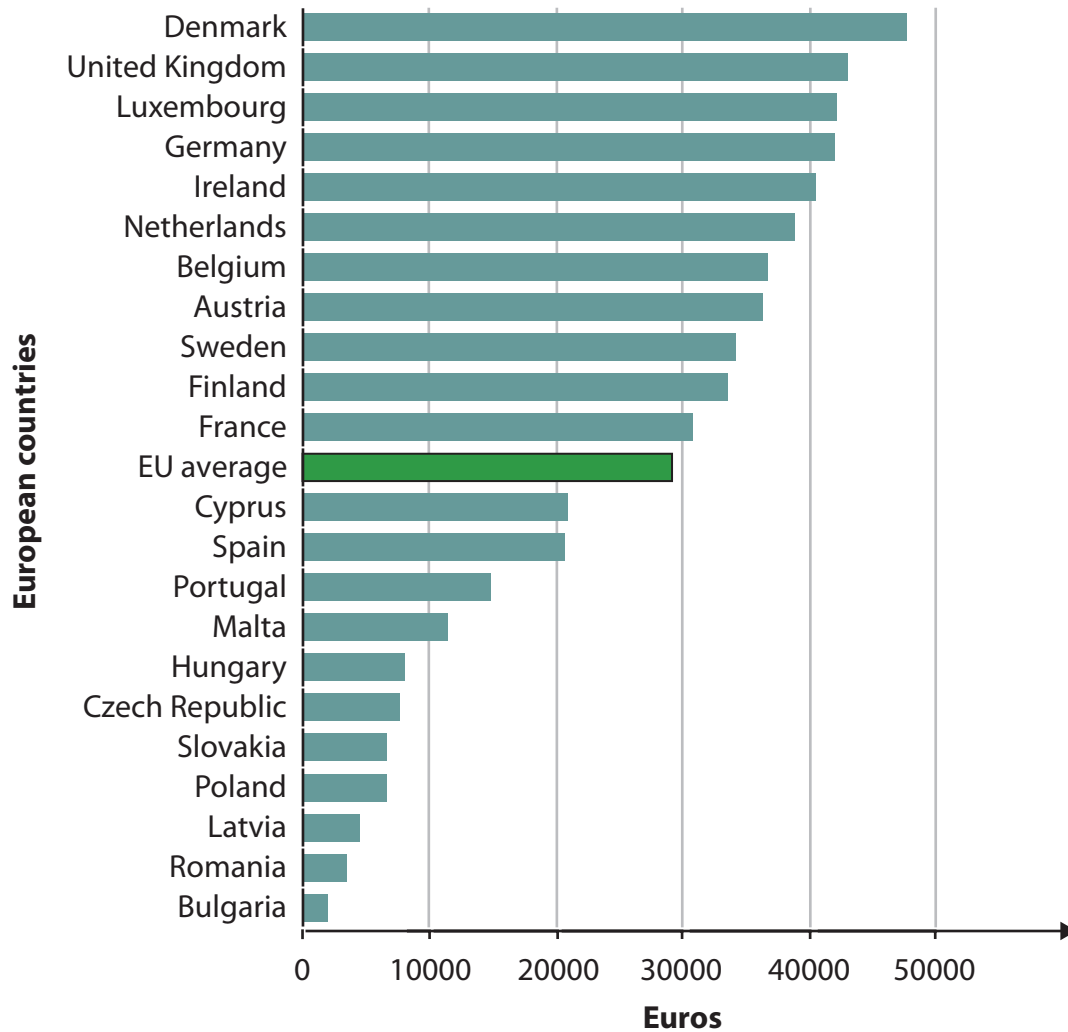
Figure 6   **Projected payouts to UK pensioners compared with pension contributions paid through taxes by UK workers**

(Source: www.ft.com)

Figure 7   Factors determining a local population's vulnerability to natural hazards

Physical
e.g.
settlement
in hazardous
areas

Social/Demographic
e.g. gender; age

Environmental
e.g. deforestation

Vulnerability

Education /
Information
e.g. prediction;
warning systems

Economic
e.g. insurance;
damage-
minimizing
structures
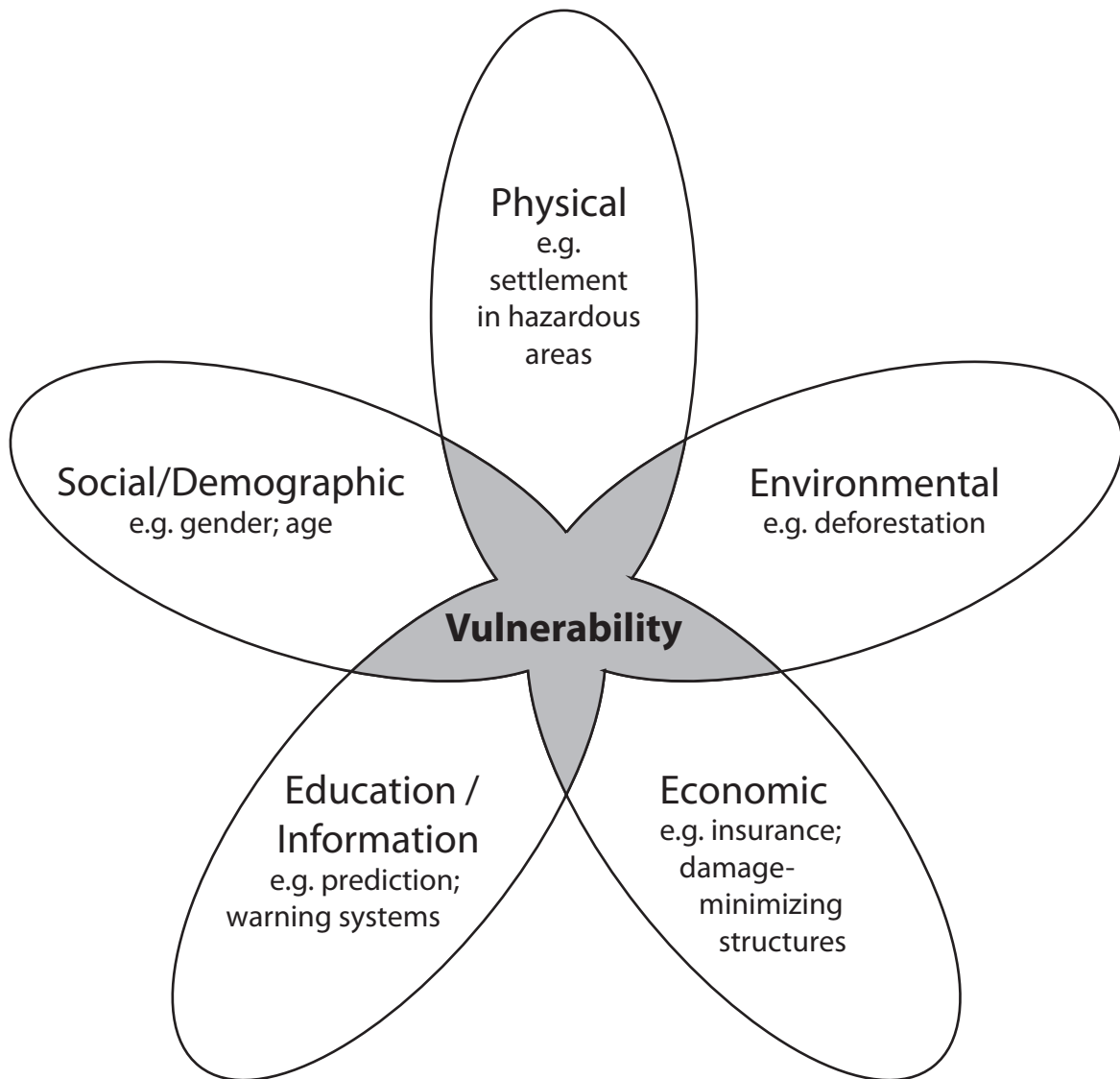
(Source: Geo-Mexico, Richard Rhoda and Tony Burton)

Figure 8   Historical evidence for colder winters than today in the UK

(1) Novels

In his books, the Victorian novelist Charles Dickens described a Britain always smothered in snow on Christmas Day. The author of *A Christmas Carol,* Dickens grew up in the early 1800s at a time when Britain was colder than it had been for over one hundred years. Snow fell during six of Dickens's first nine Christmases as a child.

THE FAIR ON THE THAMES, FEBY 4. 1814.   LA FOIRE SUR LA TAMISE, FEVRIER 4. 1814.

(2) Paintings

The painting (above) shows a "frost fair" on the frozen surface of London's River Thames in 1814.

(3) Tree rings

Dendrochronology is a scientific technique that investigates the growth pattern of tree trunks (below). It helps us gain important insights into past climate changes.

Figure 9   **'Buying locally': one example of a Yorkshire town's green strategy**

Welcome to Incredible Edible Todmorden

Incredible Edible Todmorden aims to increase the amount of local food grown and eaten in the town. Businesses, schools, farmers and the community are all involved. Vegetables and fruit are springing up everywhere. Public flower beds are being transformed into community herb gardens and vegetable patches.

Spokesperson Pam Warhurst says "We promote local food production, but at the heart of it all is the desire to give our children a better future, and what better way than this. It will become second nature for children to think about where their food comes from".

LOTTERY FUNDED

(Source: incredible-edible-todmorden.co.uk)

Figure 10   Population growth of Lima (Peru) 1790–2010
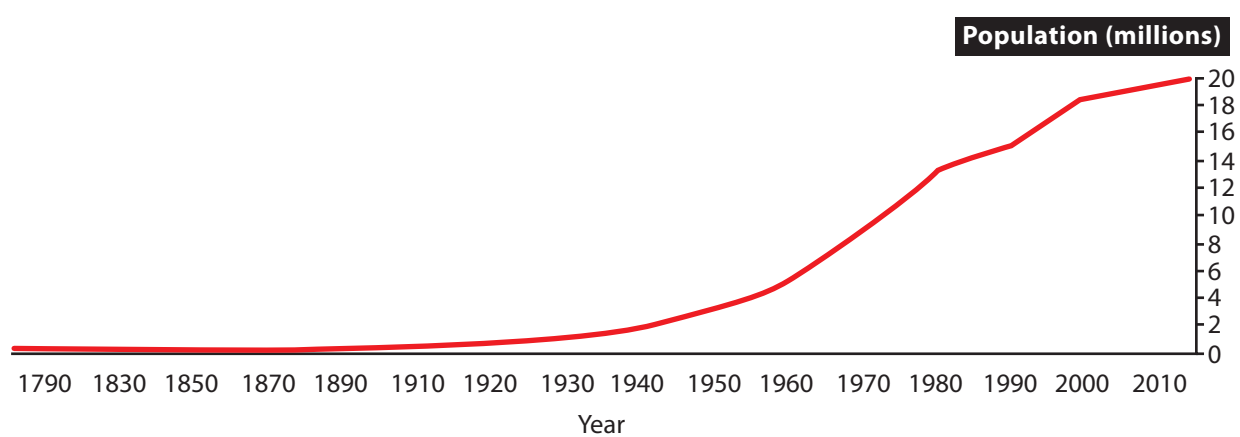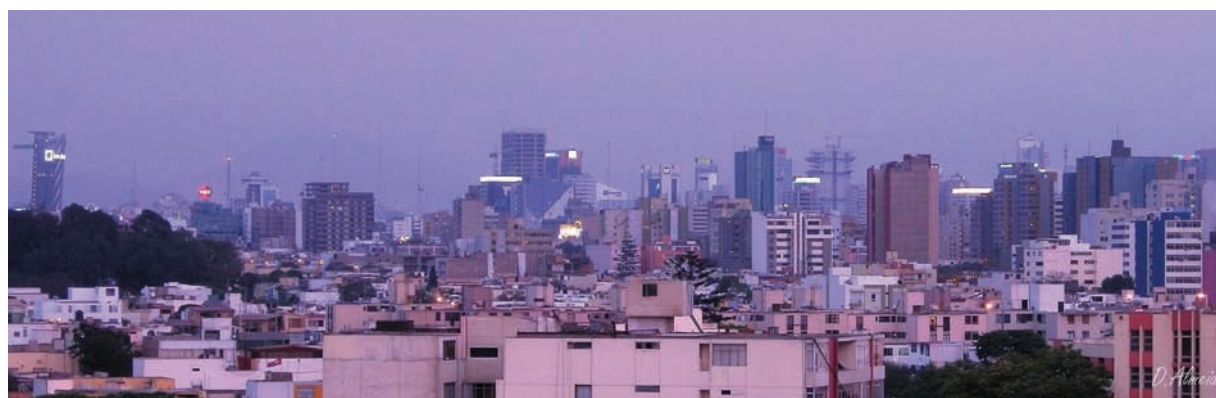
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