

Write your name here

Surname

Other names

Centre Number

Candidate Number

Edexcel GCE

Geography

Advanced Subsidiary

Unit 1: Global Challenges

Monday 14 January 2013 – Afternoon

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 ►

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SECTION A

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) (i) Identify the year when:

(2)

1. human activity was entirely to blame for a major insurance loss.

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2. a **geophysical** hazard was the cause of a major insurance loss.

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(ii) Suggest why the insurance losses shown in Figure 1 frequently relate to the USA.

(3)

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(b) Which of the following describes a **disaster hotspot**?

Put a cross in the correct box.

(1)

- A** A place that experiences many different types of natural hazard event
- B** A place where high numbers of deaths occur each year due to disasters
- C** A place where a vulnerable population is exposed to two or more hazard types
- D** A place that often experiences severe earthquakes
- E** A place where a vulnerable population is unable to pay for hazard protection

(c) Describe the natural hazards that threaten a named **local** area you have studied.

(5)

Named local area

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(Total for Question 1 = 11 marks)



2 Study Figure 2.

(a) (i) Describe the trend in recorded differences compared to the long-term average temperature in Figure 2.

(3)

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(ii) Suggest why data uncertainty decreases over time.

(3)

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(b) Explain the processes involved in the **natural** greenhouse effect.

(5)

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(Total for Question 2 = 11 marks)



3 Study Figure 3.

(a) (i) Which government strategy are people shown to be most satisfied with?

Put a cross in the correct box.

(1)

- A** Developing renewable energy sources
- B** Afforestation schemes
- C** Increasing taxes on fossil fuels
- D** Carbon trading schemes
- E** Water conservation schemes

(ii) State **one** example of an international agreement on climate change.

(1)

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(iii) Identify a possible **adaptation** strategy included in Figure 3.

(1)

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(iv) Explain how afforestation might help tackle global warming.

(3)

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(b) Explain why some climate change mitigation strategies are often unpopular.

(5)

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(Total for Question 3 = 11 marks)



4 Study Figure 4.

(a) (i) Compare Facebook connectivity in Africa with that in Europe.

(3)

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(ii) Suggest how **physical** factors might contribute to the pattern of connectivity shown.

(3)

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(b) Explain how **political** factors both help and hinder the growth of global connections.

(4)

help

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hinder

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(Total for Question 4 = 10 marks)



5 Study Figure 5.

(a) In which year would you expect Elsie Stevens to have first been recorded by a UK census?

Put a cross in the correct box.

(1)

- A 1910
- B 1911
- C 1928
- D 1931
- E 1945

(b) A greater number of people aged 100 or over were recorded in the 2011 UK census than in previous censuses. Which of the following explains most of this increase?

Put a cross in the correct box.

(1)

- A The retirement age has fallen
- B The UK has a falling birth rate
- C Retired people are moving to the UK
- D Fewer people are retiring to Spain
- E Health and hygiene have improved

(c) Suggest **three** reasons why census data may sometimes be incomplete or inaccurate.

(3)

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(d) Explain how **personal and local** data sources can be used to study population changes and people's roots.

(5)

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(Total for Question 5 = 10 marks)



6 Study Figure 6.

(a) Which two megacities show an acceptable level of SO₂ pollution by WHO recommended maximum levels?

Put a cross in the correct box.

(1)

- A Tokyo and Sao Paulo
- B Tokyo and Mexico City
- C Mexico City and Sao Paulo
- D Sao Paulo and Rio de Janeiro
- E Rio de Janeiro and Mexico City

(b) Suggest **three** reasons why air pollution is often higher in developing world megacities than in developed world megacities.

(3)

1

2

3

(c) Megacities in different countries develop in contrasting ways. Arrange the following characteristics of megacities into two groups by putting the letters A to F into the table provided.

(3)

- A Large numbers of car-owning commuters travel in from the countryside
- B Many people employed in the informal sector
- C Large scale rural to urban migration
- D Low rate of natural increase
- E Rapid shanty town growth
- F Very high per capita ecological footprint

Megacities in the developed world	Megacities in the developing world



(d) Using examples, explain how cities can become more sustainable.

(5)

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(Total for Question 6 = 12 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) Explain how El Niño cycles affect the **frequency** of floods and droughts in the Pacific region. (10)

(b) Examine the global patterns of cyclone and storm risk. (15)

(Total for Question 7 = 25 marks)

*8 Study Figure 8.

(a) Suggest why it is difficult to predict future climate change in the Arctic. (10)

(b) Examine how the **economic** impacts of climate change may vary **within** the African continent. (15)

(Total for Question 8 = 25 marks)

*9 Study Figure 9.

(a) Suggest why different groups of people disagree about the need for trade blocs such as NAFTA. (10)

(b) Examine how globalisation has resulted in economic winners and losers. (15)

(Total for Question 9 = 25 marks)

*10 Study Figure 10.

(a) Suggest why some countries have a higher percentage of foreign citizens than others. (10)

(b) Explain the benefits of migration within Europe for **host** nations. (15)

(Total for Question 10 = 25 marks)



Indicate which question you are answering by marking a cross . 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

Area with horizontal dotted lines for writing answers.



Handwriting practice area with 20 horizontal dotted lines.



Handwriting practice area with 25 horizontal dotted lines.



Handwriting practice area with 20 horizontal dotted lines.



Handwriting practice area with 20 horizontal dotted lines.



Blank writing area with horizontal dotted lines.

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



Edexcel GCE

Geography

**Advanced Subsidiary
Unit 1: Global Challenges**

RESOURCE BOOKLET

Monday 14 January 2013 – Afternoon

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6GE01/01

Do not return the Resource Booklet with the question paper.

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SECTION A

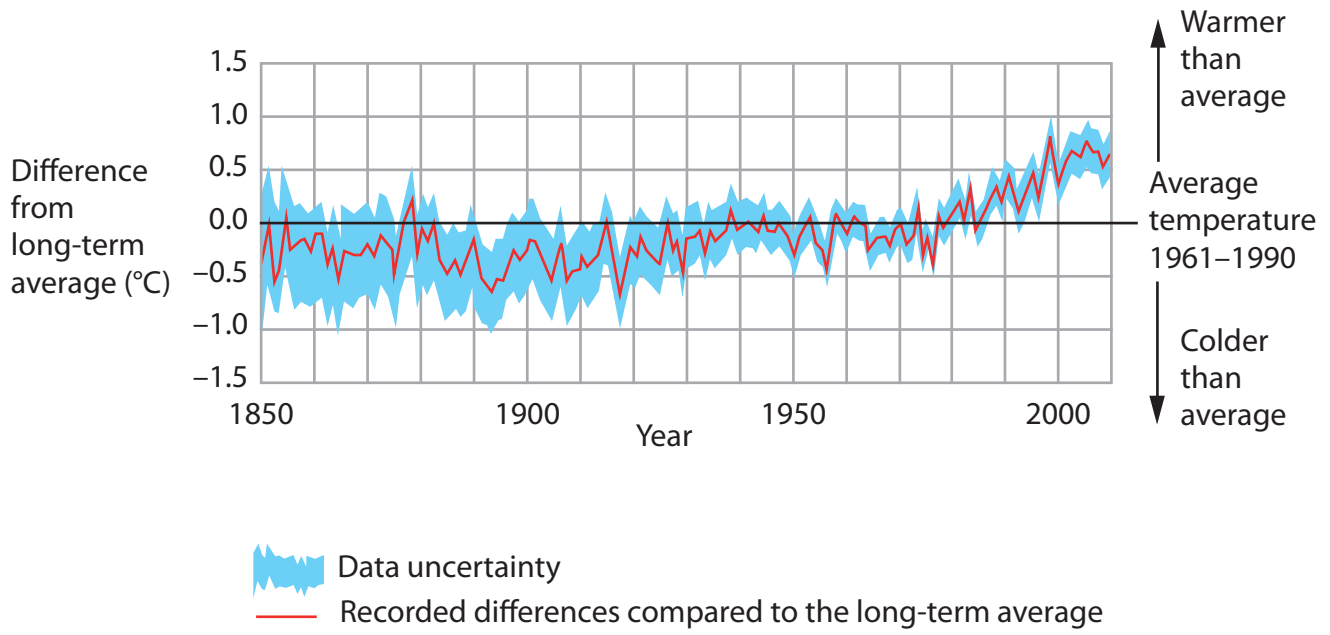
The following resources relate to Questions 1–6.

Figure 1 **The top ten insurance ‘catastrophe losses’ 1990 to 2010**

Insurance cost (\$ billion)	Year	Insurance loss due to:	Regions affected
8	1991	Typhoon Mireille	Japan
9	2004	Hurricane Charley	USA & Caribbean
9	2005	Hurricane Rita	USA & Caribbean
11	2005	Hurricane Wilma	USA & Caribbean
14	2004	Hurricane Ivan (including damage to oil rigs)	USA & Caribbean
15	2008	Hurricane Ike	USA & Caribbean
20	1994	Northridge earthquake	USA
23	2001	Terrorist attack on World Trade Center	USA
25	1992	Hurricane Andrew	USA & Caribbean
72	2005	Hurricane Katrina	USA & Caribbean

© Swiss Re

Figure 2 Global temperature variations, 1850 – 2010

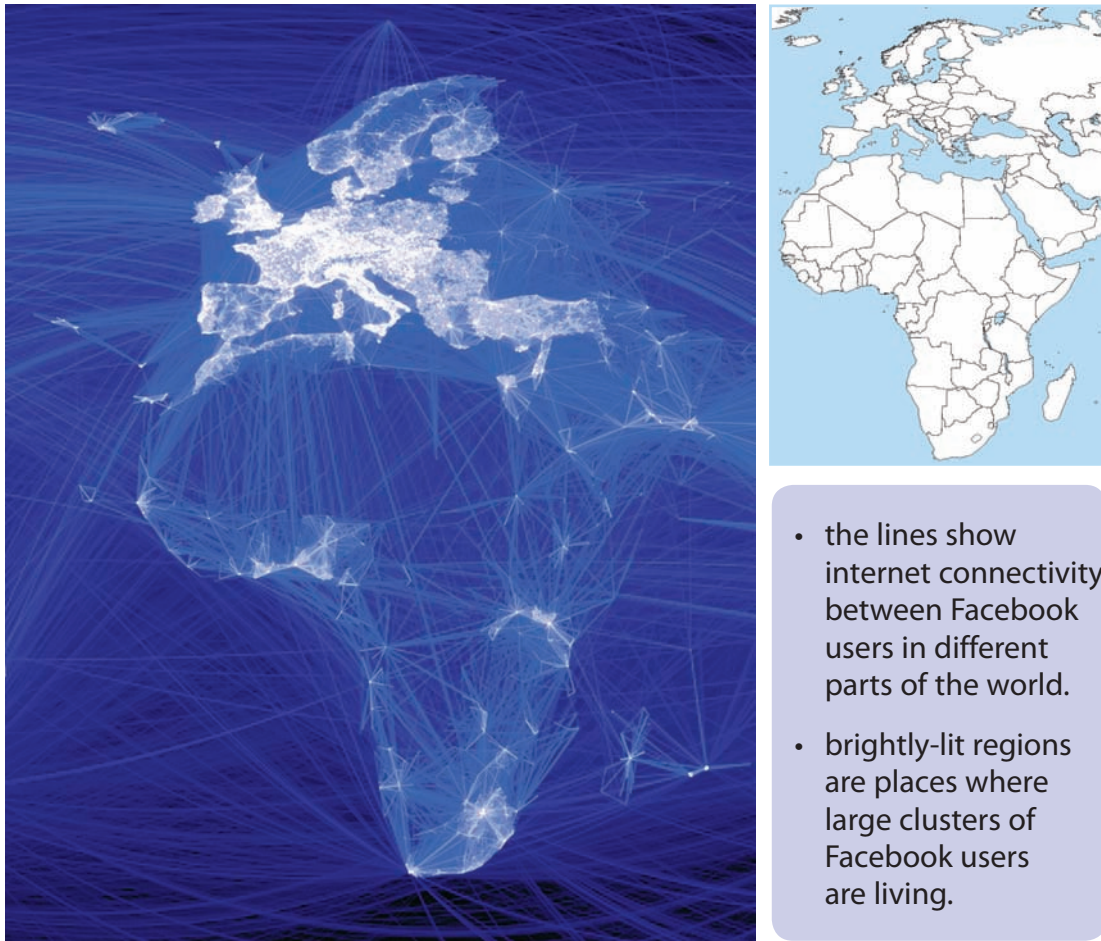


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Figure 3 The results of a survey showing the views held by UK citizens about government strategies to tackle climate change

Government strategy	Percentage of people who believe that the UK government is doing:		
	too much	too little	about right
Developing renewable energy sources	7	23	70
Afforestation schemes	14	12	74
Increasing taxes on fossil fuels	15	4	81
Carbon trading schemes	5	5	90
Participating in international agreements	13	9	78
Water conservation schemes	6	9	85
Encouraging farmers to grow new crop types	7	8	85

Figure 4 A representation of Facebook connectivity in Europe, Africa and the Middle East in 2011



© Paul Butler, Facebook's data infrastructure engineering team

Figure 5 Elsie Stevens (date of birth 4th January 1910) fills in her 2011 UK national census return

al system that generates

2 What is your sex?
 Male Female

3 What is your date of birth?
Day Month Year
4 1 1910

On 27 March 2011, what is your legal marital or same-sex civil partnership status?

<input type="checkbox"/> Never married and never registered a same-sex civil partnership	<input type="checkbox"/> In a registered same-sex civil partnership
<input type="checkbox"/> Married	<input type="checkbox"/> Separated, but still legally in a same-sex civil partnership
<input type="checkbox"/> Separated, but still legally married	<input type="checkbox"/> Formerly in a same-sex civil partnership which is now legally dissolved
<input type="checkbox"/> Divorced	<input type="checkbox"/> Surviving partner from a same-sex civil partnership
<input type="checkbox"/> Widowed	

5 Do you stay at another address for more than 30 days a year?
 No → Go to **7**
 Yes, write in other UK address below

8 During term time, do you
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 at the address in ques

11 If you
If you

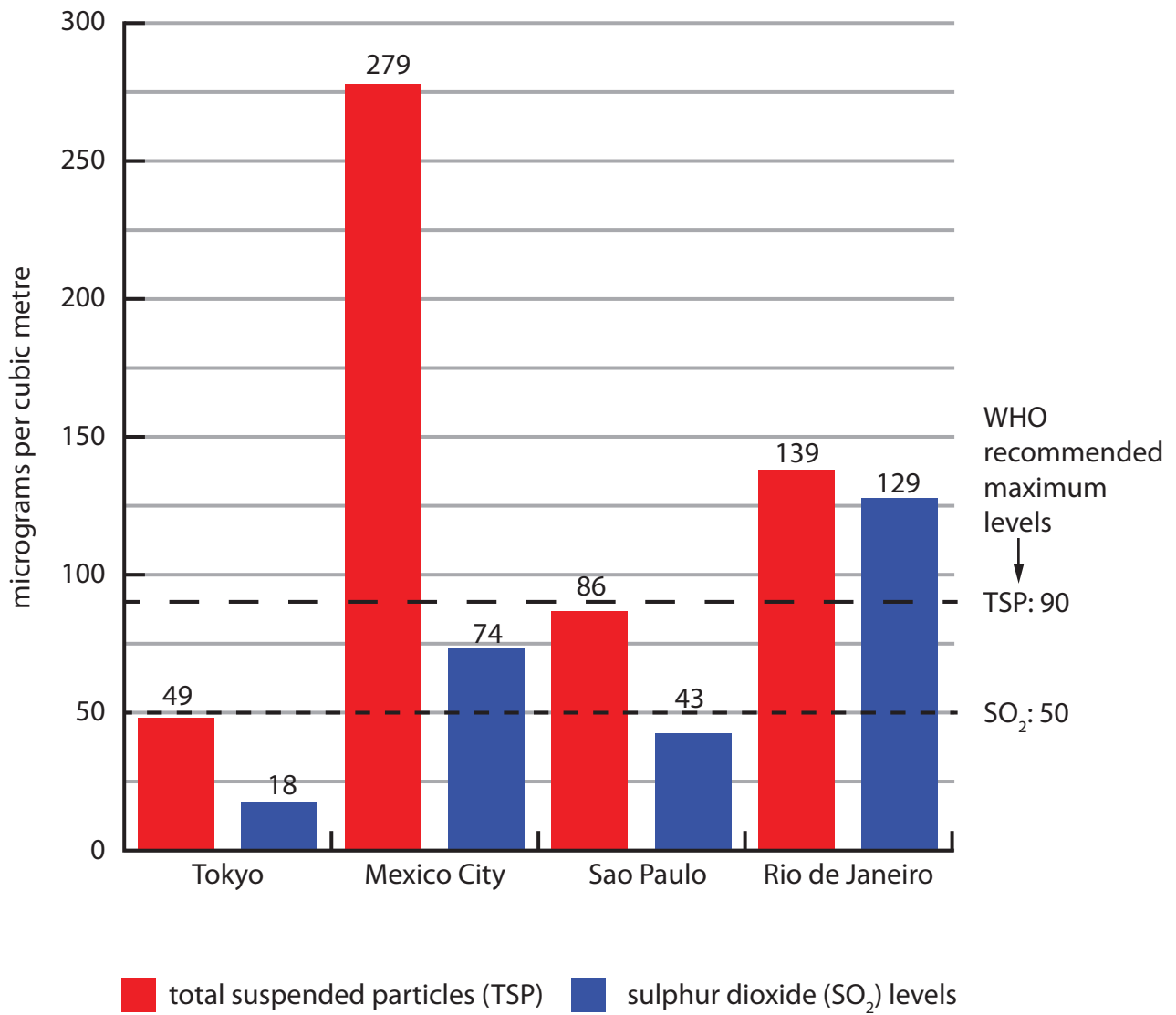
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Figure 6 Air pollution in selected megacities in relation to World Health Organization (WHO) recommended maximum levels



© UN-HABITAT

Figure 7 Changes in the atmospheric and oceanic circulations in the Pacific region during an El Niño year

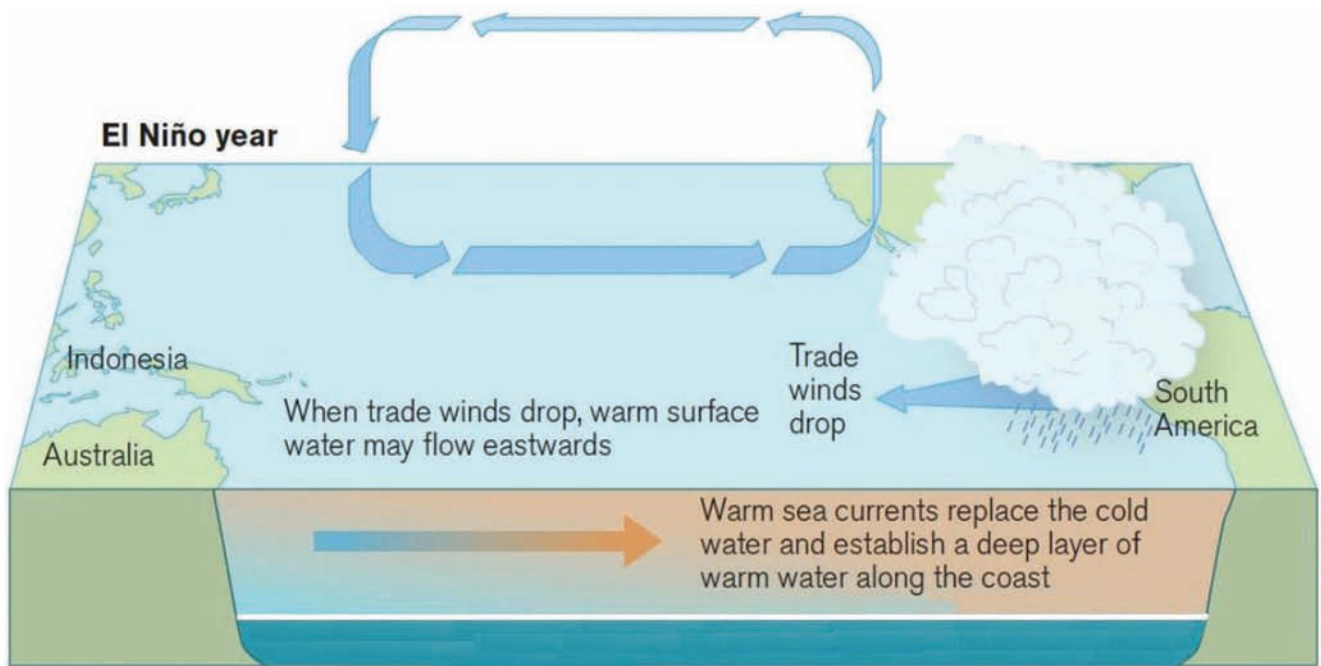
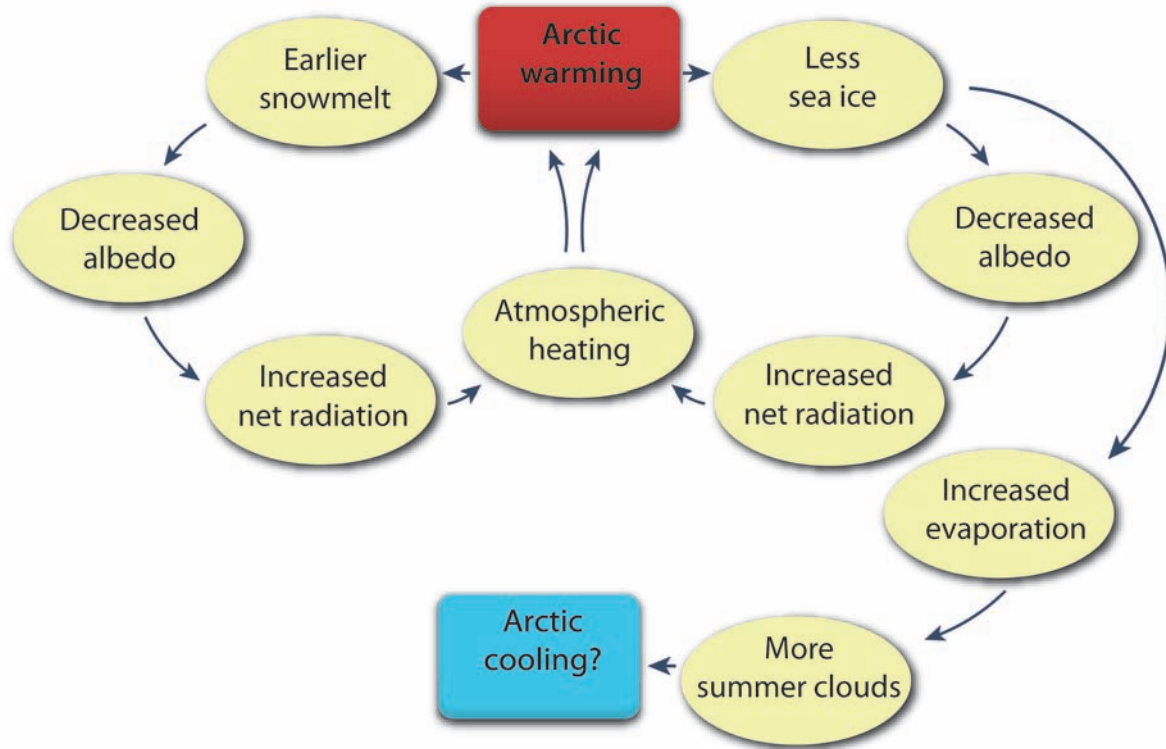


Figure 8 Feedback changes associated with atmospheric heating



© Hugo Ahlenius, UNEP/GRID-Arendal

Figure 9 Some benefits and costs of the USA's membership of the NAFTA trade bloc



The North American Free Trade Agreement, or NAFTA, is a **trade bloc** with three member states: Canada, Mexico and the USA. Since this **global grouping** was created in 1994:

- **tariffs** have been eliminated on most trade exchanges between members
- many US firms have **relocated** their operations to Mexico, where labour costs are cheaper
- cheaper goods for American consumers

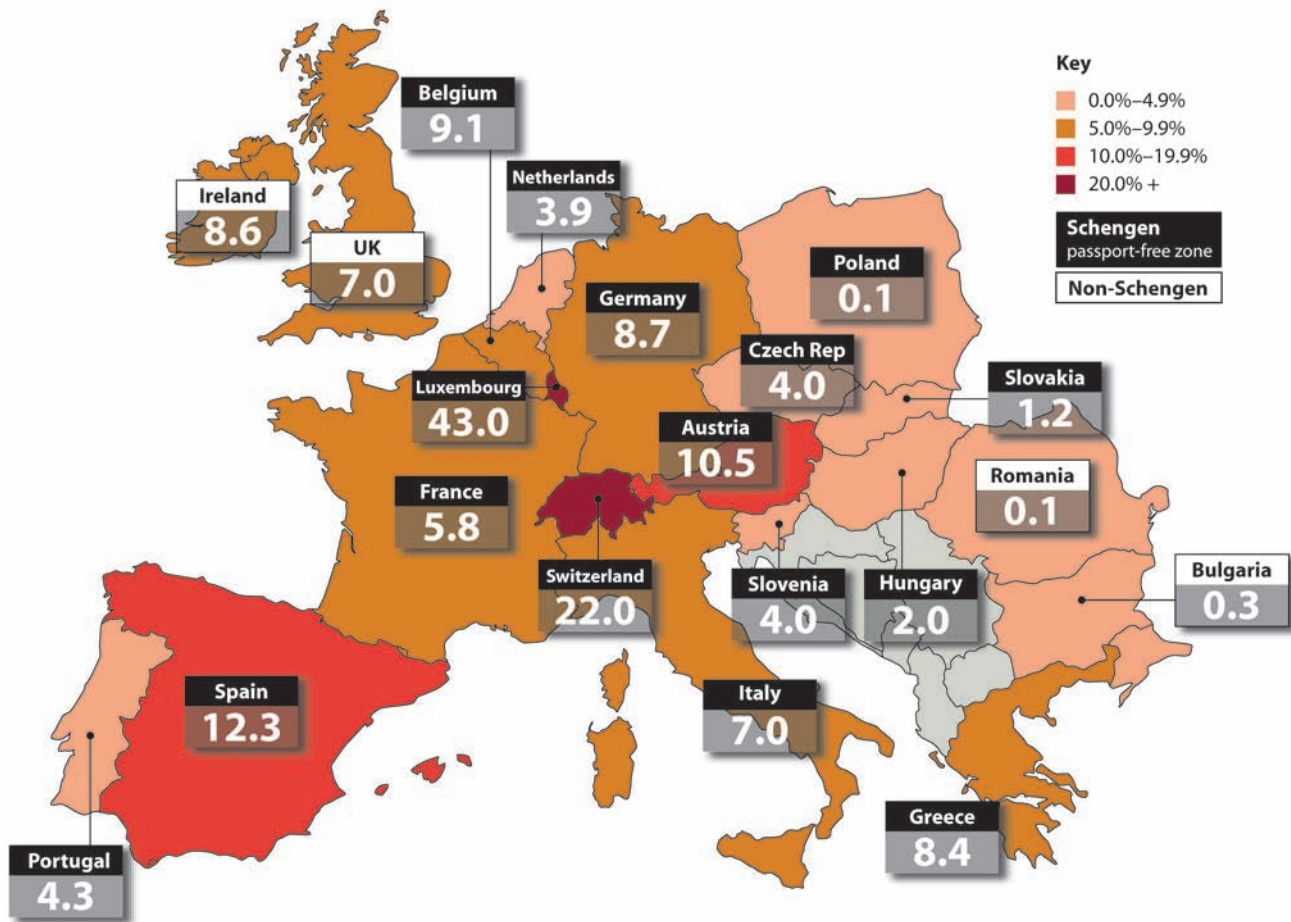


© Keith Tucker, Cartoon Stock

Figure 10 Foreign citizens as a percentage of the total resident population for some EU and European states

Foreign citizens as a percentage of the total population, 2010

Total number of foreigners, including citizens of other EU member states and non-EU citizens, usually resident in the reporting country.



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Edexcel a product of Pearson Education Ltd. gratefully acknowledges the following sources:

The Most Costly World Insurance Losses, Swiss Re, 2007

Quantifying uncertainties in global and regional temperature change, Colin Morice – John Kennedy – Nick Rayner – Phil Jones, Met Office, 2012

Visualizing Friendships, Paul Butler, Facebook's data infrastructure engineering team, 2010

Press photographs, UK Statistics Authority, 2011

State of the World's Cities 2008/2009 - Harmonious Cities, UN-HABITAT, 2008

Climate feedbacks, Hugo Ahlenius, UNEP GRID-Arendal, 2007

We Want Our Jobs Back, Keith Tucker, Cartoon Stock

The Financial Times LTD, 2011

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