Write your name here

Surname	Other names

Pearson Edexcel
Level 1/Level 2 GCSE (9–1)

Centre Number | Candidate Number

Geography A

Paper 1: The Physical Environment

Tuesday 22 May 2018 – Afternoon
Time: 1 hour 30 minutes

Paper Reference
1GA0/01

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 Question 1 and **two** questions from Questions 2, 3 and 4.
- In Section B and Section C answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- 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 94.
- The marks for **each** question are shown in brackets – *use this as a guide as to how much time to spend on each question.*
- The marks available for spelling, punctuation, grammar and use of specialist terminology are clearly indicated.

Advice

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

Turn over

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SECTION A

The Changing Landscapes of the UK

Answer all parts of Question 1. Write your answers in the spaces provided.

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 UK landscapes are made up of different rock types.

(a) (i) Identify **one** example of an igneous rock.

(1)

☐ **A** chalk

☐ **B** granite

☐ **C** sandstone

☐ **D** schist

(ii) State **one** characteristic of igneous rocks.

(1)

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(b) Freeze thaw is an example of a weathering process.

State **one** other weathering process that affects the landscape.

(1)

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(c) Study Figure 1 below.

(i) Label the landform feature **Y** shown on Figure 1.

(1)

Y .....

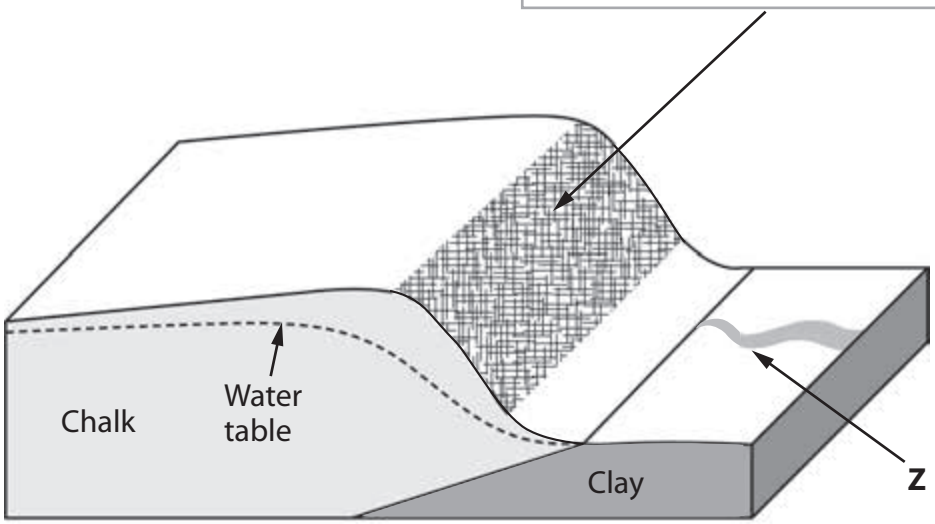

Figure 1

A geological cross-section through a lowland (sedimentary) landscape

(ii) Explain **one** reason why a stream is found at **Z**.

(2)

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(Total for Question 1 = 6 marks)

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Answer only two questions from Question 2 (Coastal Landscapes and Processes), Question 3 (River Landscapes and Processes) and Question 4 (Glaciated Upland Landscapes and Processes).

Question 2: Coastal Landscapes and Processes

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

2 Coastal landscapes are constantly being changed by different processes.

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

Identify the landform at 708518.

(1)

.....

(b) State **one** method of sediment transport along the UK coastlines.

(1)

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(c) Wave action is important along this stretch of coastline.

Explain **one** way in which destructive waves can increase the rate of coastal erosion.

(2)

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

Examine the role of different physical processes in the formation of the bar shown in Figure 2b.

(8)

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(Total for Question 2 = 12 marks)

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Question 3: River Landscapes and Processes

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

3 River landscapes are constantly being changed by different processes.

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

Identify the landform at 517988.

(1)

.....

(b) State **one** type of erosion that takes place in a river.

(1)

.....

(c) The velocity of a river changes with distance downstream.

Explain **one** reason why river velocity usually increases with distance downstream.

(2)

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

Examine the role of different physical processes in the formation of the meander shown in Figure 3b.

(8)

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(Total for Question 3 = 12 marks)

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Question 4: Glaciated Upland Landscapes and Processes

If you answer Question 4 put a cross in the box ☒ .

4 Glaciated upland landscapes are constantly being changed by different processes.

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

Identify the landform at 328282.

(1)

.....

(b) State **one** type of glacial erosion that operated in the UK during the last ice age.

(1)

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(c) Glaciers advance and retreat.

Explain **one** reason why a glacier may retreat.

(2)

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(d) Study Figure 4b in the Resource Booklet.

Examine the role of different physical processes in the formation of the crag and tail shown in Figure 4b.

(8)

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(Total for Question 4 = 12 marks)

TOTAL FOR SECTION A = 30 MARKS

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SECTION B

Weather Hazards and Climate Change

Answer all questions in this section. Write your answer in the spaces provided.

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 ☒.

5 Global climate is changing due to natural causes and human activities.

(a) (i) Identify **one** natural cause of climate change.

(1)

☐ **A** factories

☐ **B** volcanoes

☐ **C** rice farming

☐ **D** car exhaust

(ii) State **two** greenhouse gases.

(2)

1 .....

2 .....

(b) Study Figure 5 below.

Mean monthly temperature (°C)	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec
	5	5	7	10	13	15	18	17	15	10	7	5

Figure 5

Mean monthly temperatures in Reading, England

(i) Calculate the modal value of the mean monthly temperatures shown in Figure 5.

(1)

.....°C

(ii) Explain **one** reason why temperature varies seasonally in the UK.

(3)

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(Total for Question 5 = 7 marks)

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6 Tropical cyclones develop under specific conditions and in certain locations.

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

(i) Identify which latitudinal zone is affected most by tropical cyclones.

(1)

☒ **A** 30°N – 60°N

☒ **B** 10°N – 30°N

☒ **C** 0° – 10°N

☒ **D** 0° – 10°S

(ii) Explain **one** reason why tropical cyclones do not travel far inland.

(3)

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(iii) Study Figure 6b below.

Tropical cyclone Winston hit Fiji, a developing country.

The United Nations International Children's Emergency Fund (UNICEF) reported that tens of thousands of people in Fiji are living in evacuation centres after Cyclone Winston tore across the South Pacific country last week.

The total number of people forced from their homes in the nation of more than 300 islands is expected to be much higher as many fled to relatives and are not included in the available data.

Winston was the worst storm recorded in the southern hemisphere, leaving 42 people dead. The category-five storm also left many without water and it could be weeks before electricity is restored in some areas.

Figure 6b

Extract from a newspaper article, 29th February 2016

With reference to Figure 6b, suggest **two** social impacts of Cyclone Winston.

(4)

1 .....

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2 .....

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(b) Study Figure 6c in the Resource Booklet.

Identify the change in total rainfall shown at **X** on Figure 6c.

(1)

☒ **A** 20mm to 60mm

☒ **B** 0mm to 19mm

☒ **C** -1mm to -20mm

☒ **D** -21mm to -60mm

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(c) State **two** reasons why a drought may be hazardous to people.

(2)

1 .....

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2 .....

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

Suggest **two** reasons why deforestation in Queensland may cause drought.

(4)

1 .....

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2 .....

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(e) Assess the different responses to drought in a named emerging **or** developing country.

(8)

Named emerging or developing country .....

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(Total for Question 6 = 23 marks)

TOTAL FOR SECTION B = 30 MARKS

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SECTION C

Ecosystems, Biodiversity and Management

Answer all questions in this section. Write your answer in the spaces provided.

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 ☒.

Spelling, punctuation, grammar and specialist terminology will be assessed in Question 7(f).

7 Deciduous woodland is one of the UK's main ecosystems.

(a) Name **one** tree species found in deciduous woodlands in the UK.

(1)

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(b) Study Figure 7a below.

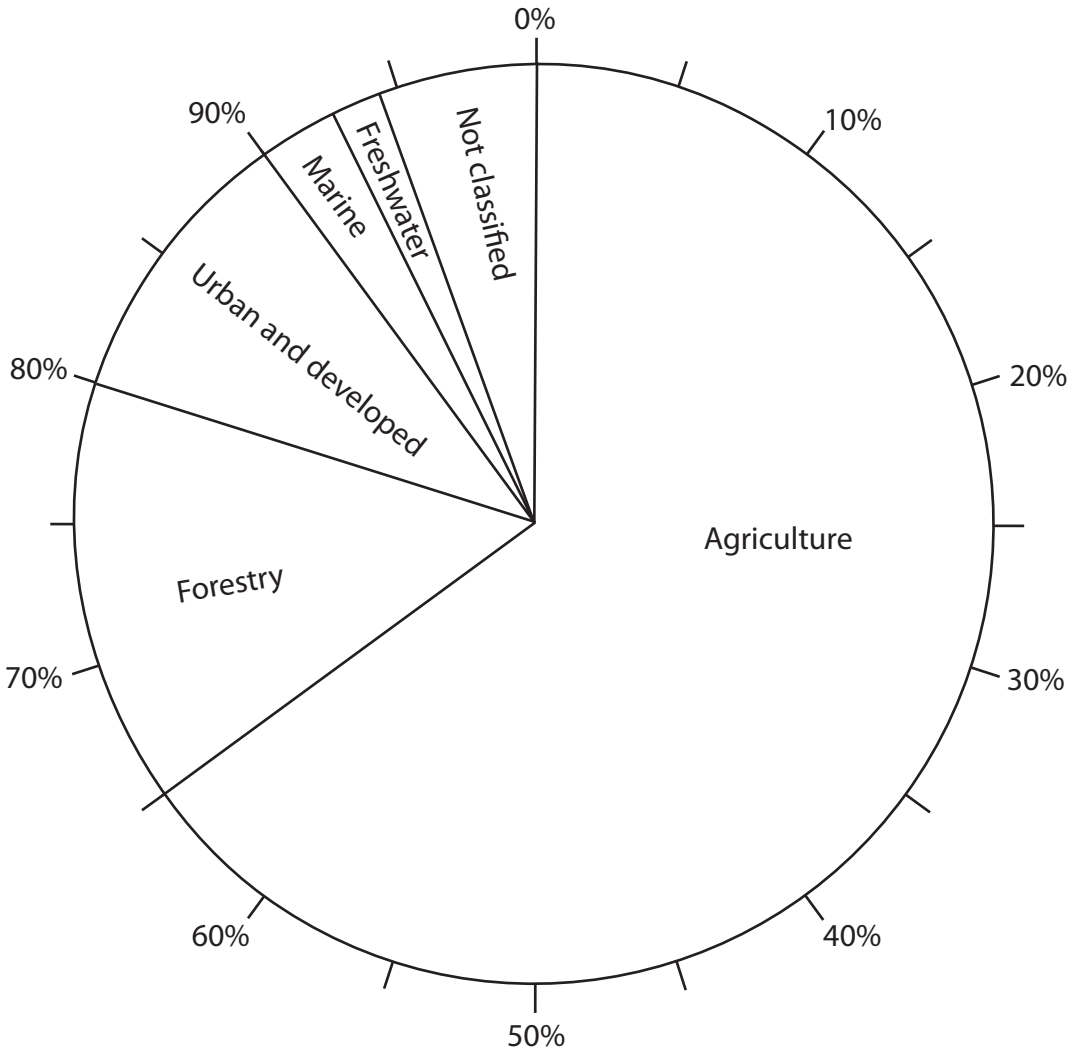

Figure 7a

Pie chart showing land use in the UK

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(i) Identify the percentage of the UK's land use which is forestry.

(1)

.....%

(ii) The total area of the UK is 23 500 000 hectares (ha).

Calculate the area of forestry in the UK.

You must show your working in the space below.

(2)

..... ha

(c) Large-scale ecosystems (global biomes) are found in different parts of the world.

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

Identify the continent with the smallest area of desert.

(1)

☒ **A** Asia

☒ **B** Europe

☒ **C** North America

☒ **D** Africa

(ii) Explain **one** way climate influences the distribution of deserts.

(3)

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(d) Study Figure 7c below.

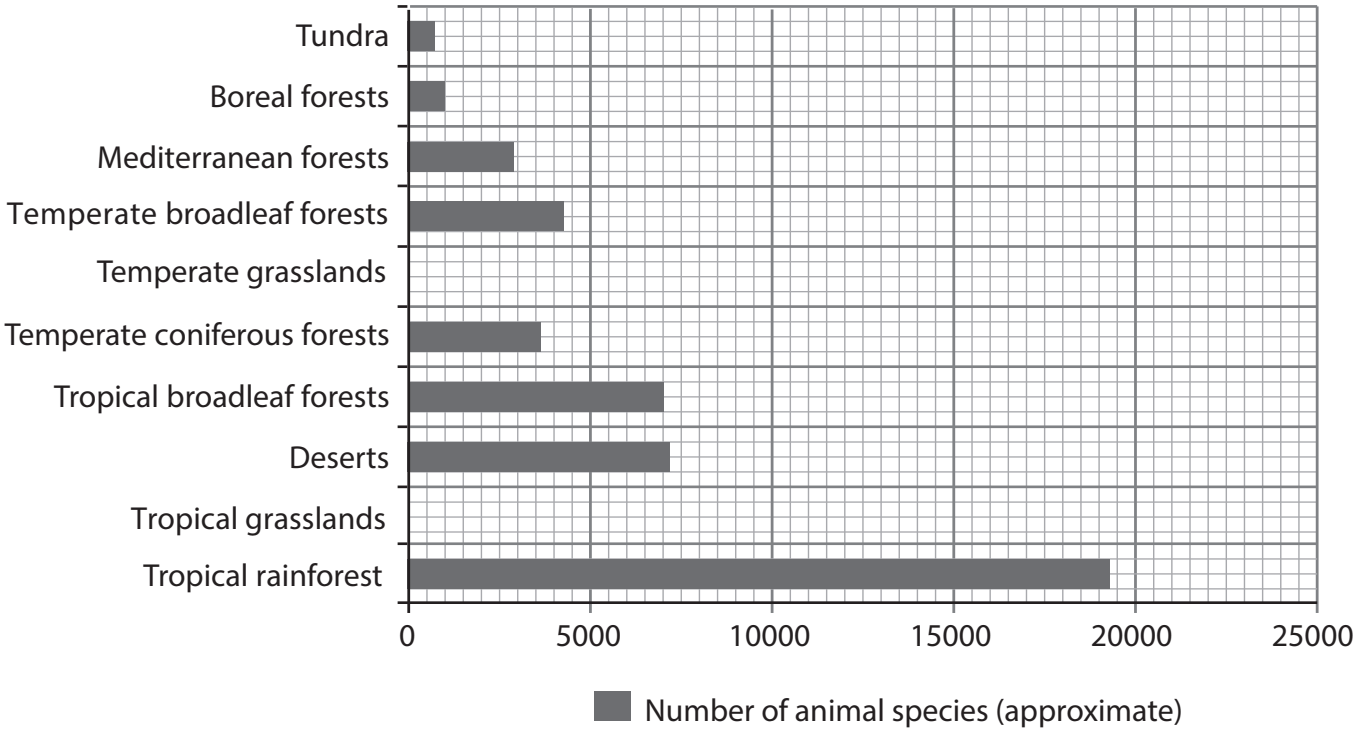

Figure 7c

Number of animal species in selected large-scale ecosystems

(i) Plot the data from the table below on Figure 7c.

(2)

Large-scale ecosystem	Number of animal species
Tropical grasslands	7 500
Temperate grasslands	4 000

(ii) Explain **one** reason why Tropical rainforests have a very high biodiversity.

(2)

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(e) Tropical rainforests provide goods and services for people, but are also under threat.

Study Figure 7d below.

> The amount of land lost to deforestation in 1995 was 29 059 km^2.
>
> In 2015 the amount of land lost to deforestation had fallen by 80%.

Figure 7d

Information about deforestation in Brazil

(i) Calculate the amount of land lost to deforestation in 2015.

Answer to one decimal place.

You must show your working in the space below.

(2)

..... km^2

(ii) Explain **two** causes of deforestation in tropical rainforests.

(4)

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

Suggest **one** reason why the annual rate of deforestation has changed since 2004.

(4)

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In this question, up to four additional marks will be awarded for your spelling, punctuation, grammar and use of specialist terminology.

(f) Assess the role of biotic and abiotic characteristics in the functioning of tropical rainforests.

(8)

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(Spelling, punctuation, grammar and use of specialist terminology = 4 marks)
(Total for Question 7 = 34 marks)

TOTAL FOR SECTION C = 34 MARKS
TOTAL FOR PAPER = 94 MARKS

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Pearson Edexcel Level 1/Level 2 GCSE (9–1)

Geography A

Paper 1: The Physical Environment

Tuesday 22 May 2018 – Afternoon

Resource Booklet

Paper Reference

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SECTION A

Figure 2a

Ordnance Survey map of coastline near St Agnes, Cornwall, England

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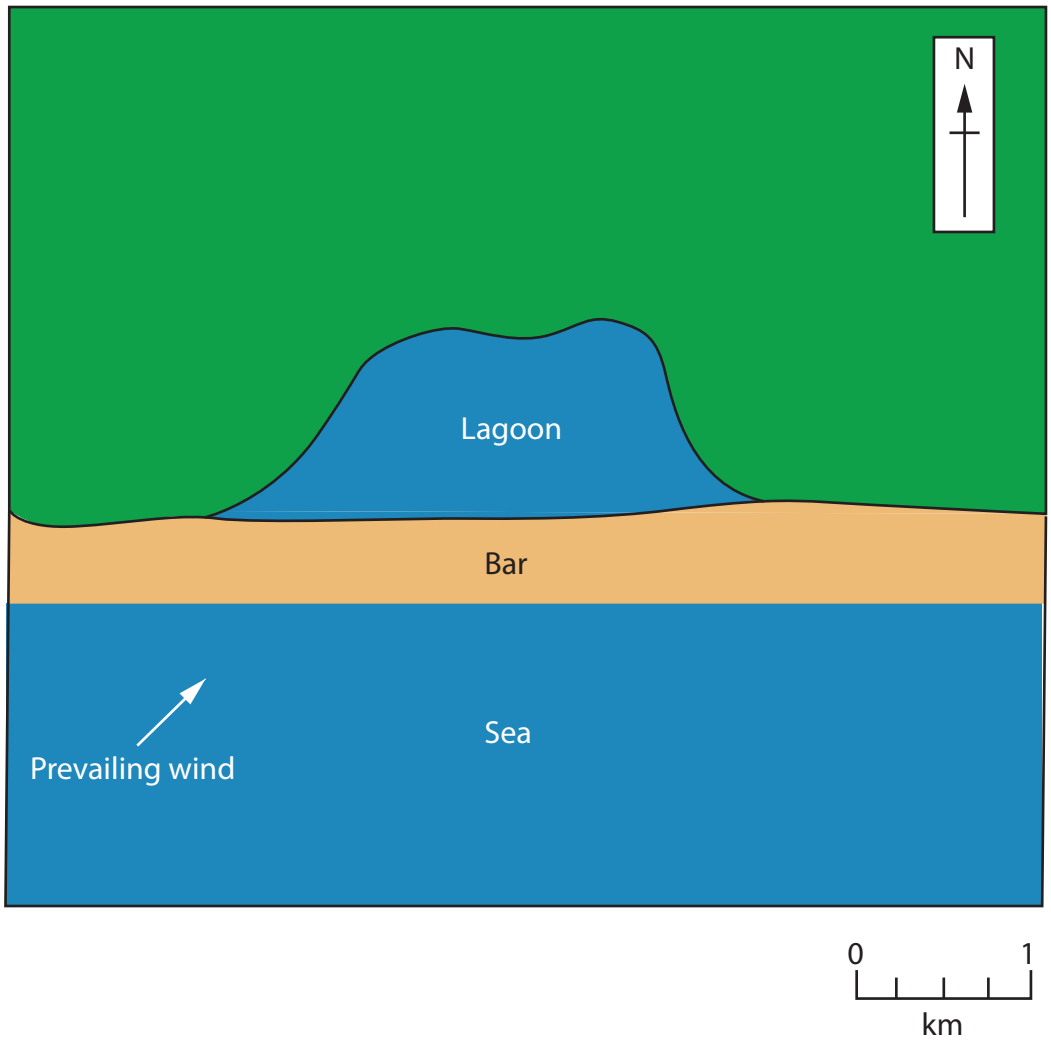

Figure 2b

A diagram showing a bar

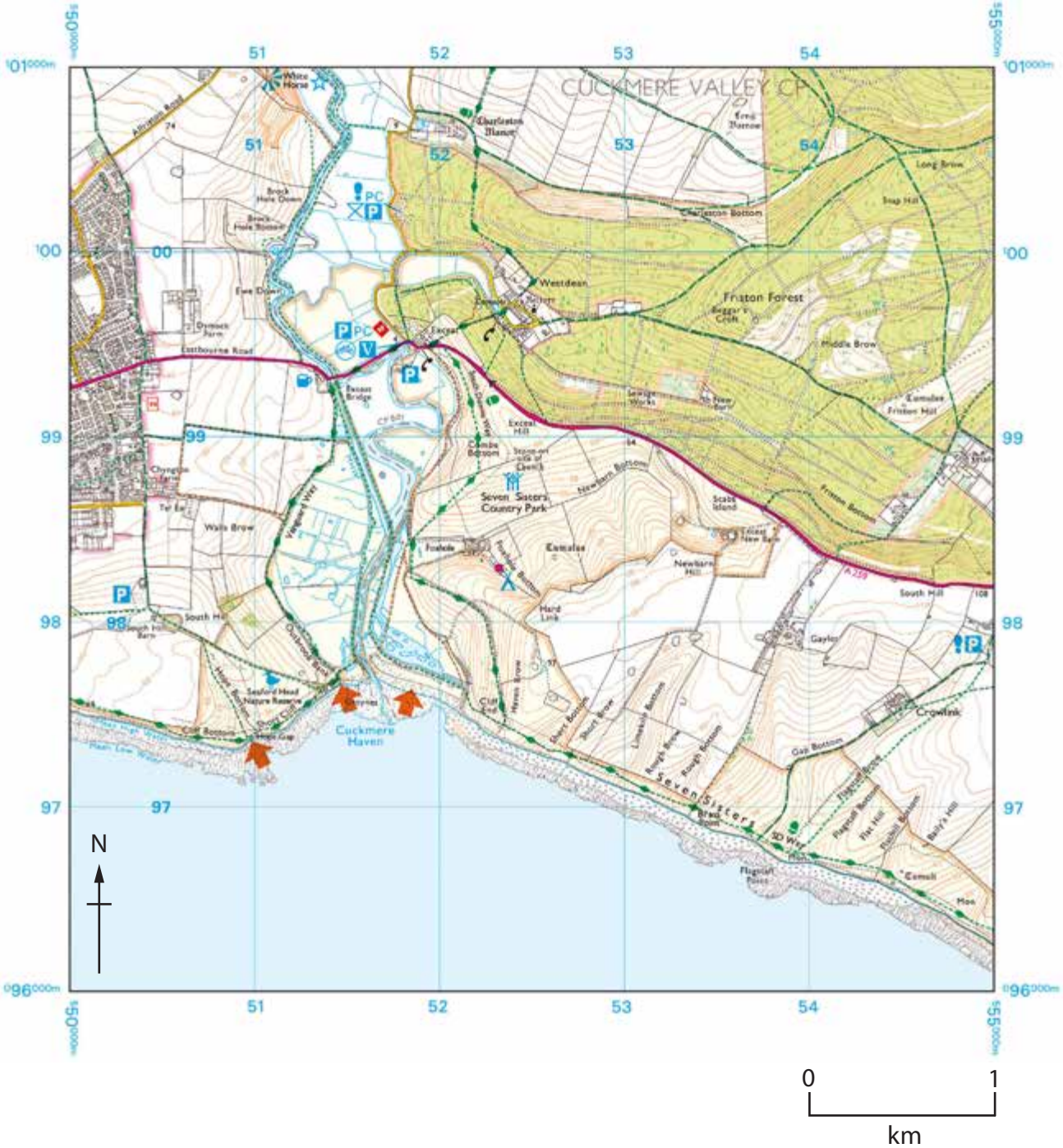

Figure 3a

Ordnance Survey map of Birling Gap, Sussex, England

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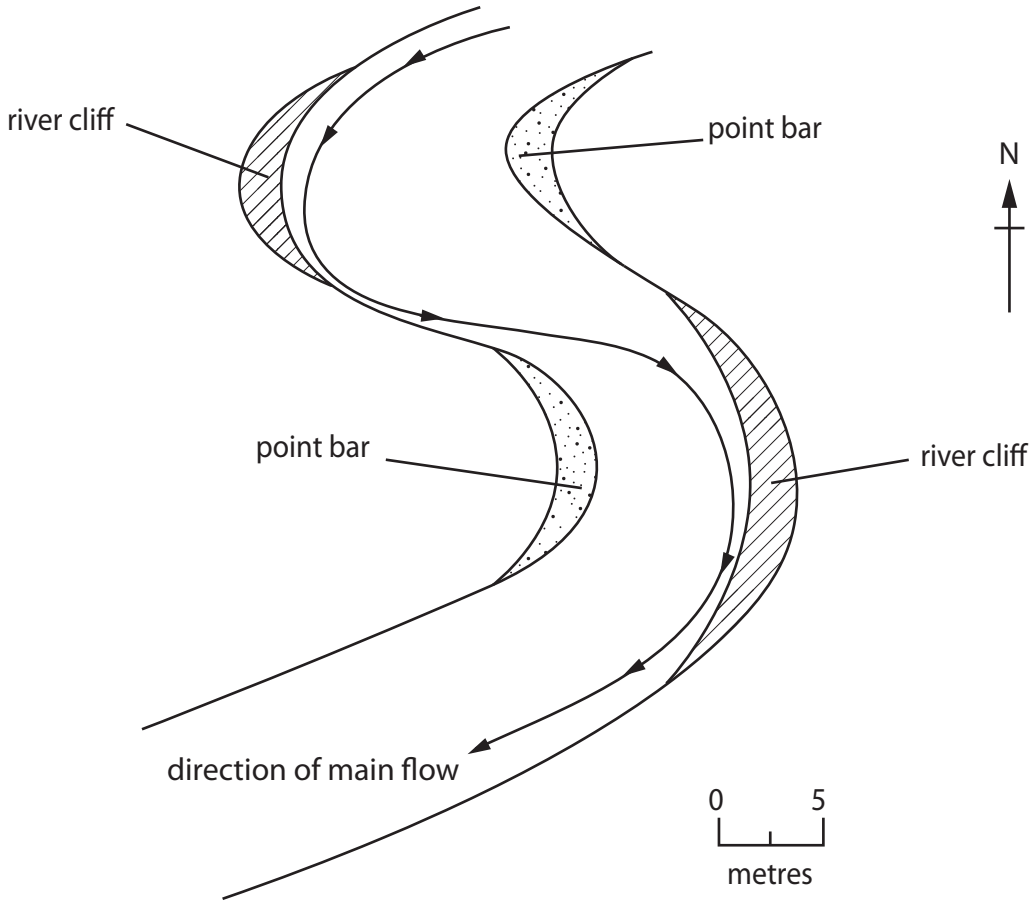

Figure 3b

A diagram showing a meander

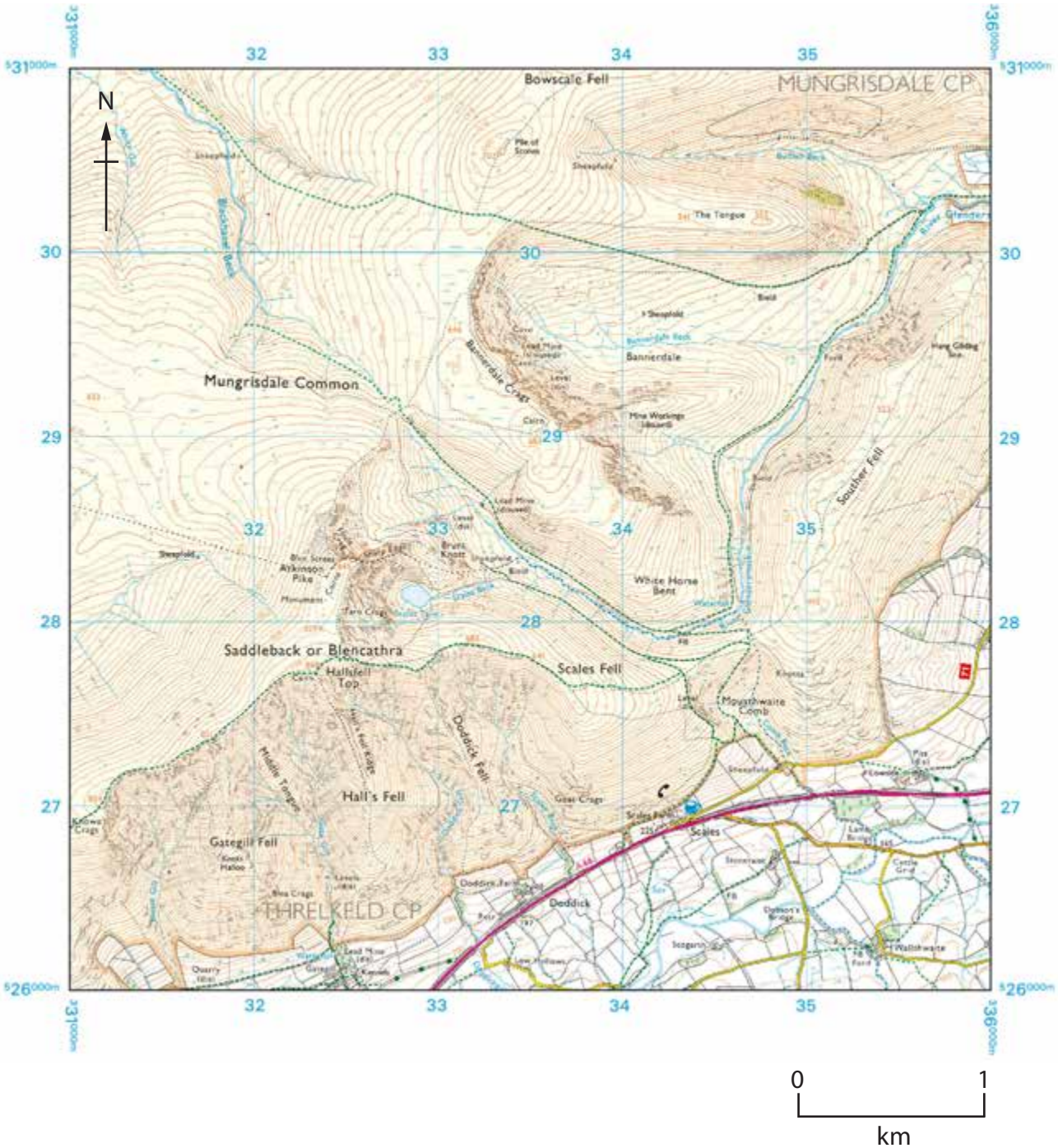

Figure 4a

Ordnance Survey map of Blencathra, Cumbria, England

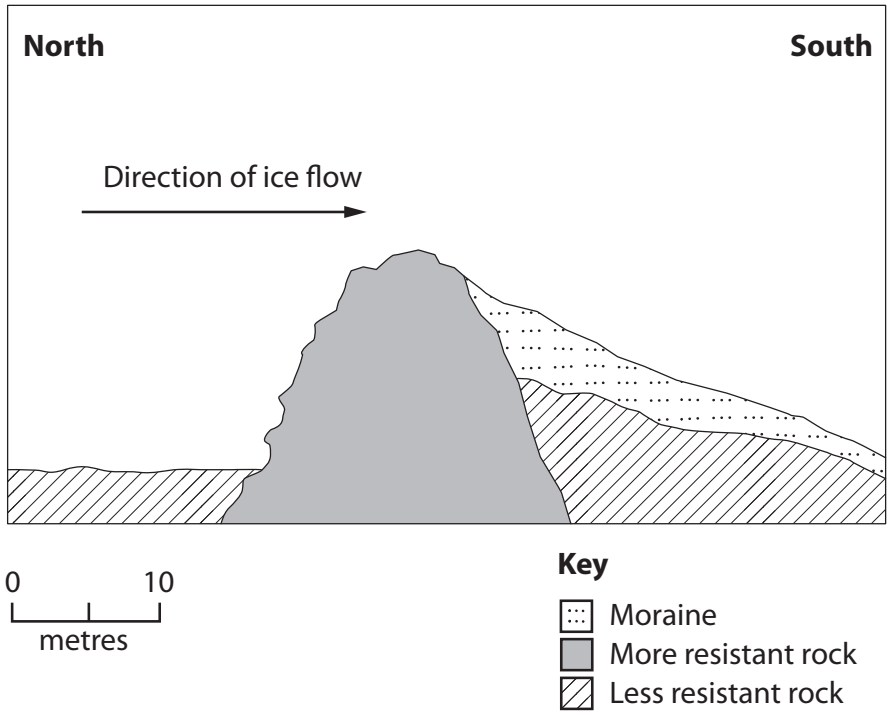

Figure 4b

A diagram showing a crag and tail

SECTION B

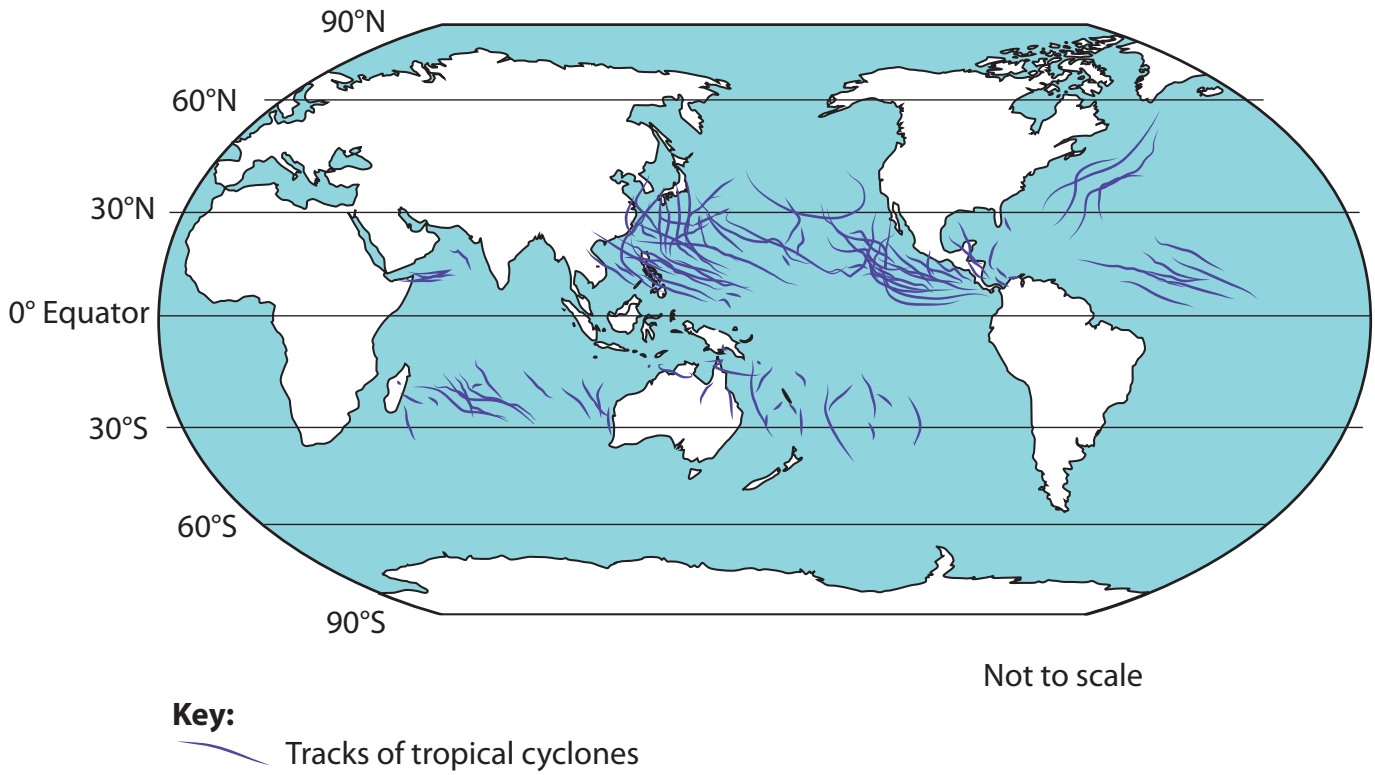

Figure 6a

Map showing the tracks of tropical cyclones in 2015

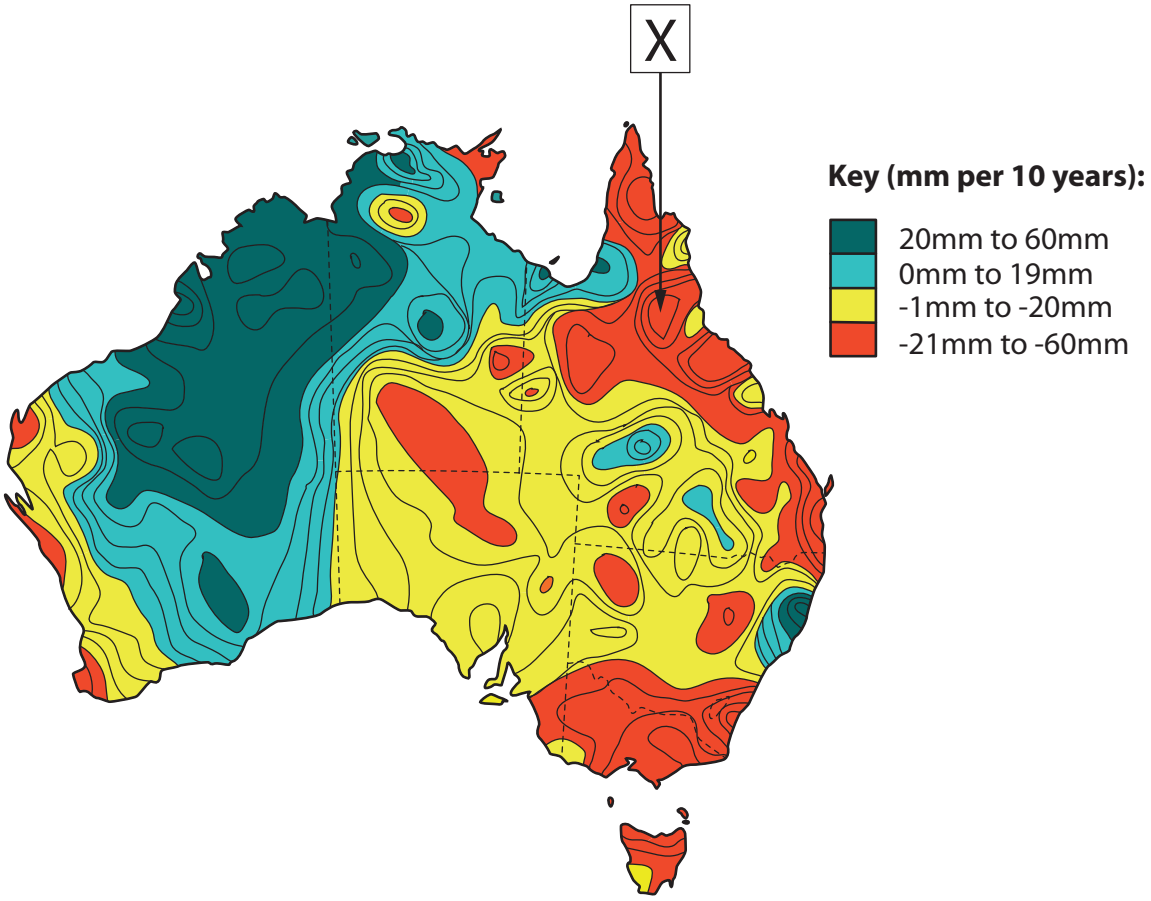

Figure 6c

Map showing the change in total rainfall in Australia per 10 years, 1970-2010

1. The rate of deforestation tripled between 2008/9 and 2013/14.
2. Deforestation in Queensland is contributing to nearly a third of Australia's rising CO_2 emissions.

Figure 6d

An aerial photograph showing an area of forest clearance in Queensland, Australia

SECTION C

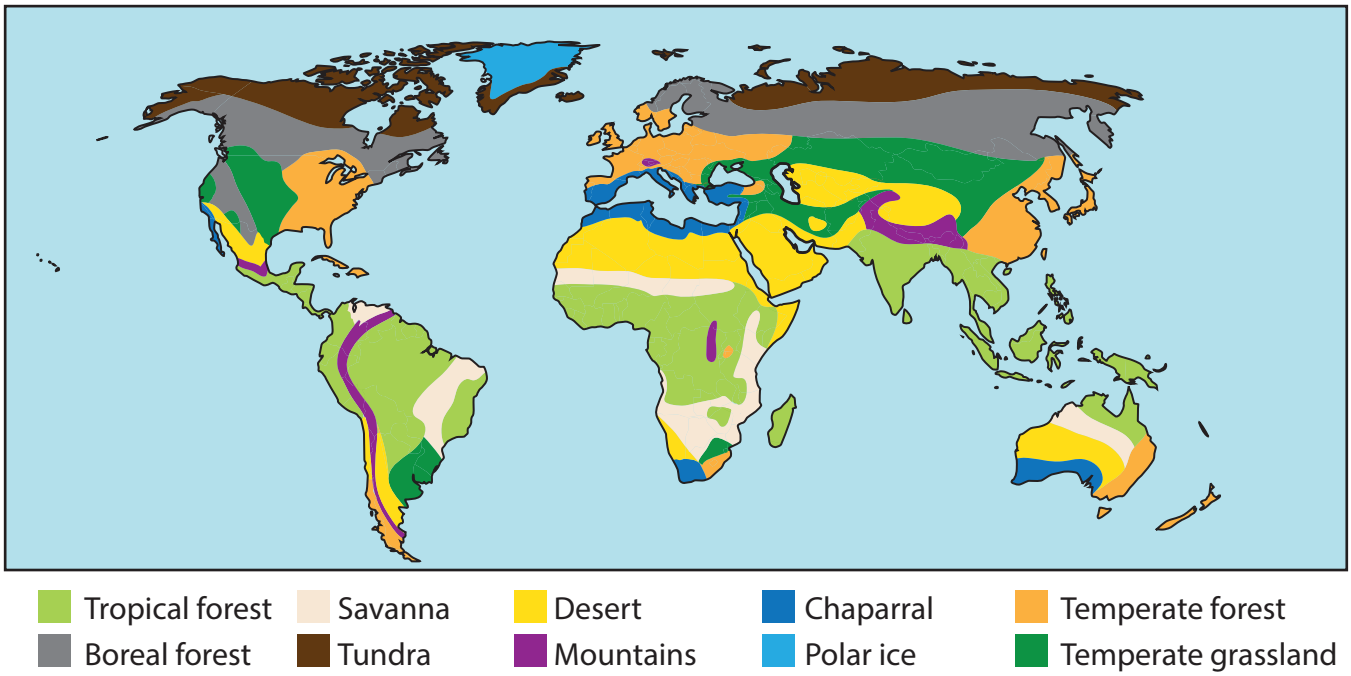

Figure 7b

Map showing the global biomes

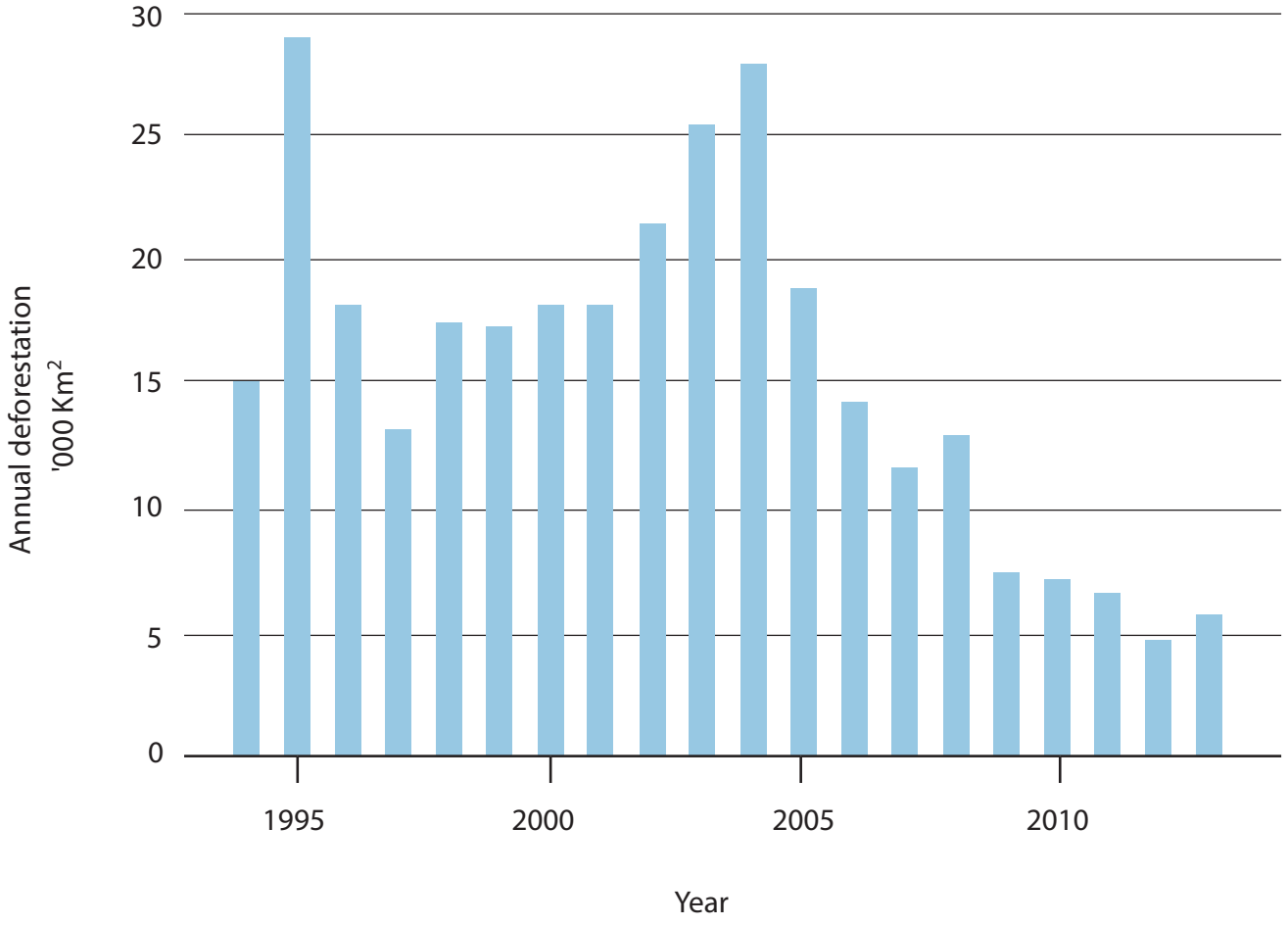

Figure 7e

Annual rate of deforestation in Brazil, 1994–2013

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Figure 6b 2017 Guardian News and Media Limited

Figure 6c http://www.bom.gov.au/climate/change/index.shtml#tabs=Tracker&tracker=trend-maps

Figure 6d https://www.theguardian.com/environment/2015/sep/17/deforestation-surges-in-queensland-ahead-of-crackdown-on-land-clearing#img-2

Figure 7b https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/use/?cid=nrcs142p2_054002

Figure 7e http://www.economist.com/news/science-and-technology/21603409-how-brazil-became-world-leader-reducing-environmental-degradation-cutting?zid=313&ah=fe2aac0b11adef572d67aed9273b6e55

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