SPECIMEN ASSESSMENT MATERIAL

GCSE
GEOGRAPHY

Paper 2 Challenges in the human environment

Specimen Time allowed: 1 hour 30 minutes

Materials

For this paper you must have:

- a pencil
- a ruler.

Instructions

- Use black ink or black ball-point pen.
- Fill in the boxes at the bottom of this page.
- Answer **all** questions in Section A and Section B.
- Answer Question 3 and **one** other question in Section C.
- You must answer the questions on the spaces provided. Do **not** write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- The total number of marks available for this paper is 88.
- Spelling, punctuation, grammar and specialist terminology will be assessed in Question 01.8.

Advice

For the multiple-choice questions, completely fill in the circle alongside the appropriate answer(s).

CORRECT METHOD ● WRONG METHODS

If you want to change your answer you must cross out your original answer as shown.

If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown.

Please write clearly, in block capitals, to allow character computer recognition.

Centre number ☐☐☐☐☐ Candidate number ☐☐☐☐

Surname

Forename(s)

Candidate signature _____

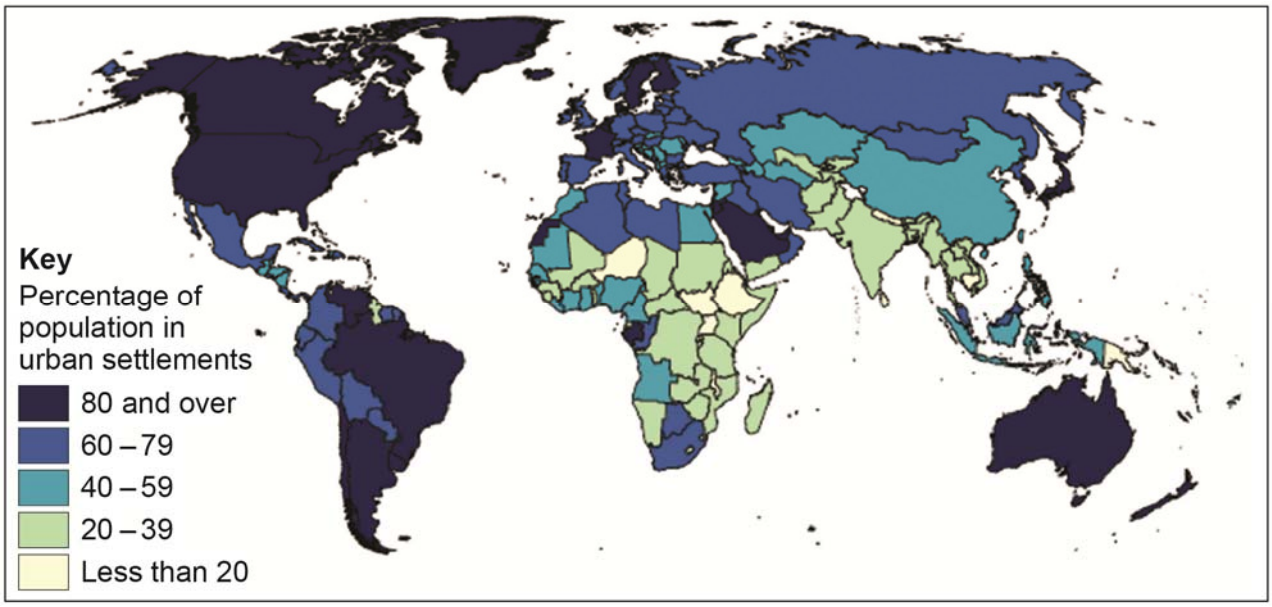
Section A Urban issues and challenges

Answer **all** questions in this section.

Question 1 Urban issues and challenges

Study **Figure 1**, a map showing the percentage of the population living in urban settlements in different parts of the world.

Figure 1



0 1 . 1 Describe **two** differences in the percentage of population living in urban settlements in Africa and South America.

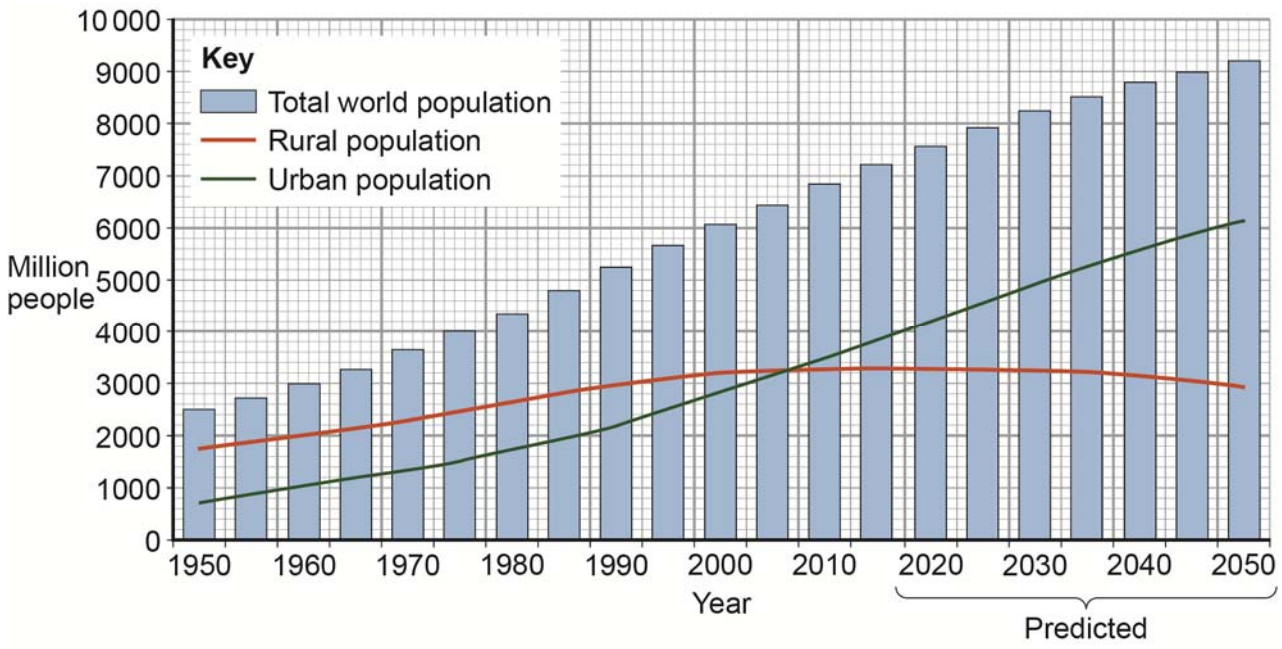
[2 marks]

Difference 1:

Difference 2:

Study **Figure 2**, a graph showing changes in the world's rural and urban population from 1950 to 2050 (predicted).

Figure 2



0 1 . 2 Using **Figure 2**, which **two** of the following statements about the world's rural and urban population are true?

Shade **two** circles only.

A The rural population grew fastest between 2000 and 2010. ⬭

B The urban population grew more rapidly than the rural population between 1950 and 2000. ⬭

C The urban population is expected to grow more slowly than the rural population from 2015 onwards. ⬭

D The urban population increased by over 2000 million between 1950 and 2010. ⬭

E The world's total population doubled between 1950 and 1980. ⬭

[2 marks]

Question 1 continues on the next page

0 1 . 3 Suggest **two** reasons for the slow rate of urban growth in many higher income countries (HICs).

[2 marks]

Reason 1

Reason 2

0 1 . 4 To what extent do urban areas in lower income countries (LICs) or newly emerging economies (NEEs) provide social and economic opportunities for people?

[6 marks]

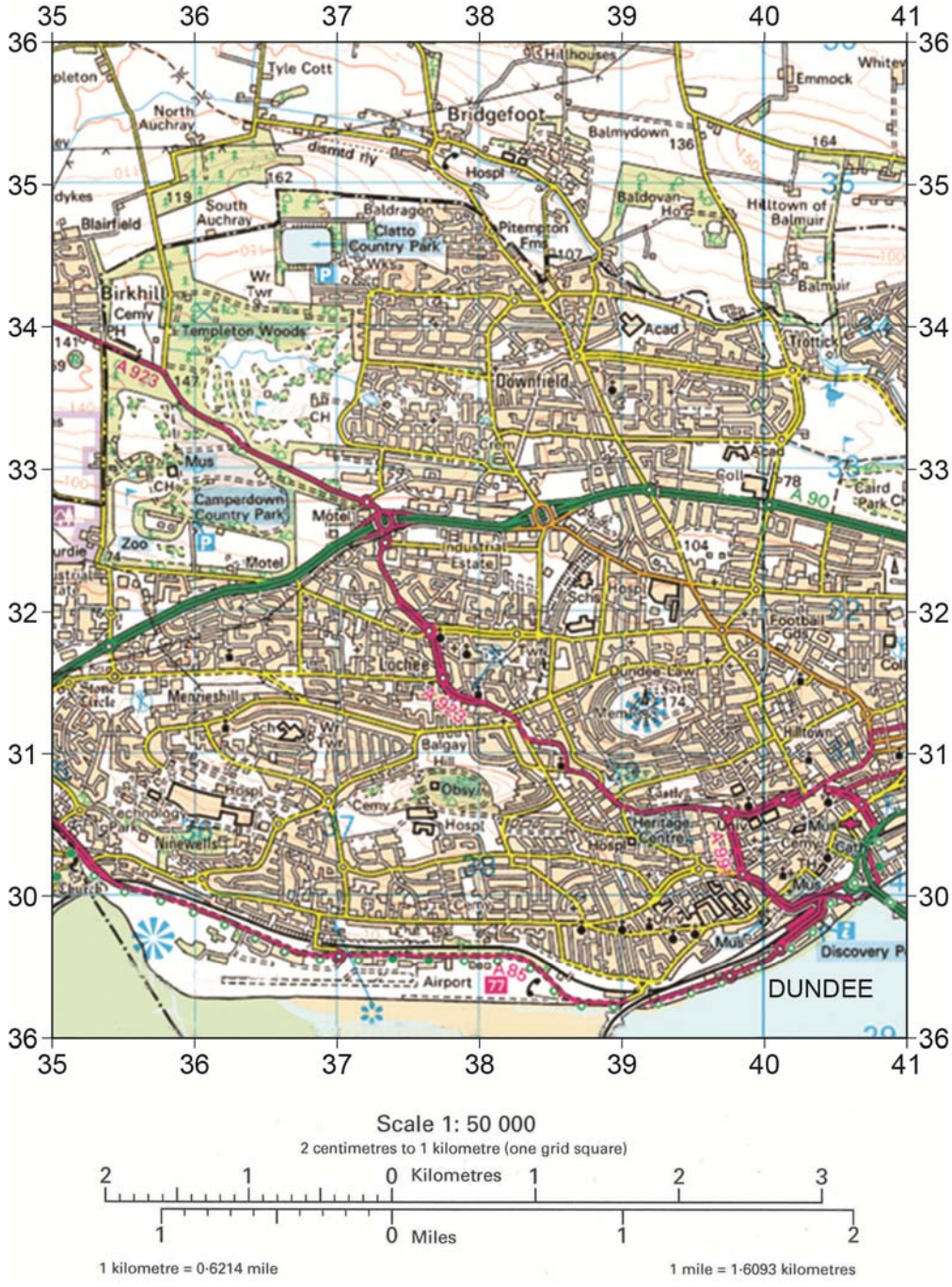
Question 1 continues on page 6

Question 1 continues on the next page

DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED

Study **Figure 3**, a 1:50 000 map of Dundee, a city in Scotland.

Figure 3



0 1 . 5 Which grid square shows part of the rural–urban fringe of Dundee?

Shade **one** circle only.

A 3630 ⬭

B 3833 ⬭

C 3930 ⬭

D 3934 ⬭

[1 mark]

0 1 . 6 Discuss the effects of urban sprawl on people and the environment.

Use **Figure 3** and a case study of a major city in the UK.

[6 marks]

Question 1 continues on the next page

0 1 . 7 Explain **one** economic problem caused by traffic congestion.

[2 marks]

0 1 . 8 Evaluate the effectiveness of an urban transport scheme(s) you have studied.

[9 marks]
[+ 3 SPaG marks]

END OF SECTION A

Turn over for Section B

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ANSWER IN THE SPACES PROVIDED

Section B The changing economic world

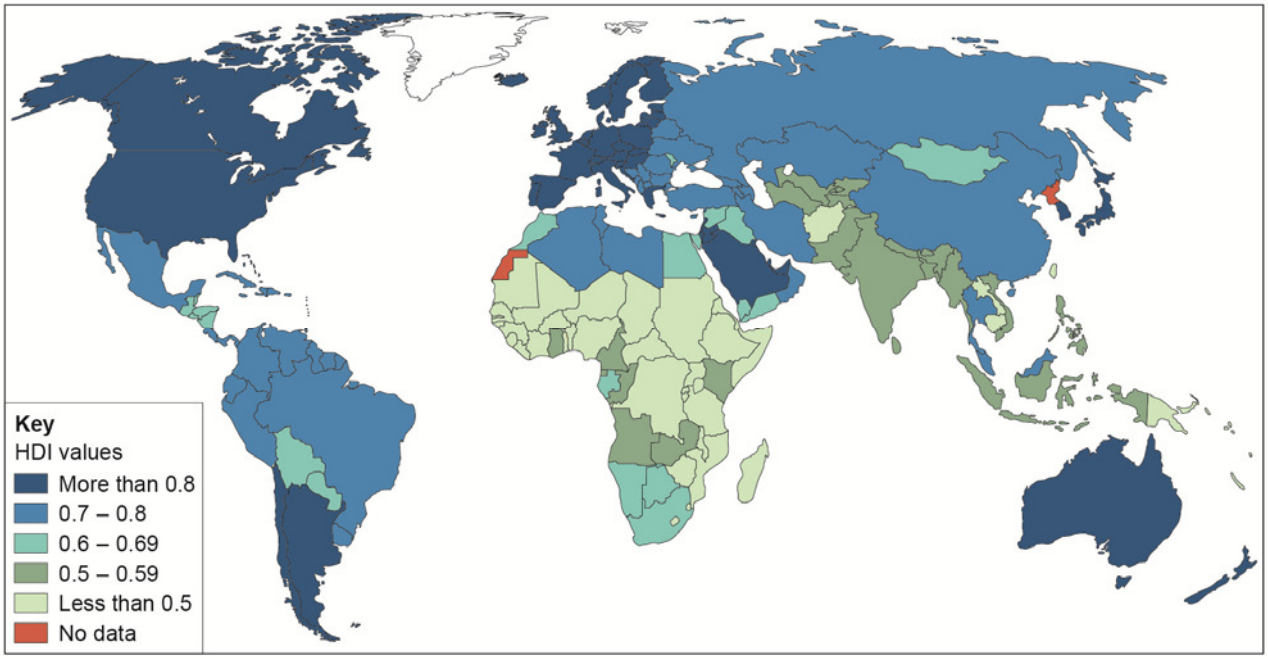
Answer **all** questions in this section.

Question 2 **The changing economic world**

Study **Figure 4**, a world map showing the global distribution of Human Development Index (HDI) values.

HDI combines data on life expectancy, educational levels and income, with values ranging from 0 (worst) to 1 (best).

Figure 4



0 2 . 1 Using **Figure 4**, compare HDI values in Africa and South America.

[2 marks]

0 2 . 2 Outline **one** disadvantage of using a single measure of development such as income.

[2 marks]

Study **Figure 5**, a table showing indicators of development for three countries.

Figure 5

Country	GNI (US$)	Life expectancy (years)	Adult literacy rate (%)
China	3 650	75	95
Sierra Leone	240	45	43
Italy	35 110	83	99

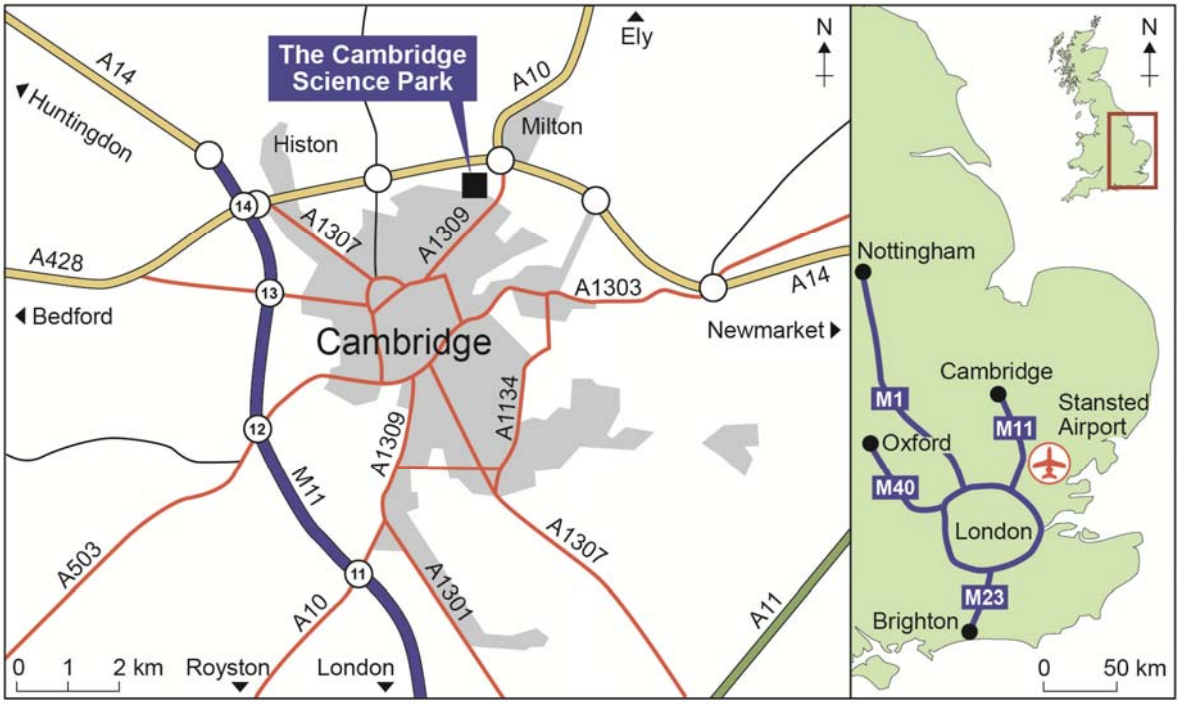
0 2 . 3 Explain how **one** of the indicators of development in **Figure 5** shows the differences in the quality of life between the three countries.

[4 marks]

Question 2 continues on the next page

Study **Figure 6**, maps showing the location of the Cambridge Science Park in the UK.

Figure 6



0 2 . 4 Using **Figure 6**, measure the direct distance between the Cambridge Science Park and junction 14 of the M11.

[1 mark]

_____ km

0 2 . 5 Using **Figure 6**, explain the advantages of this location for the Cambridge Science Park.

[4 marks]

_____

_____

_____

_____

_____

_____

_____

_____

0 2 . 6 Give **two** reasons why there has been a growth in the number of science parks in the UK.

[2 marks]

Reason 1: _____

_____

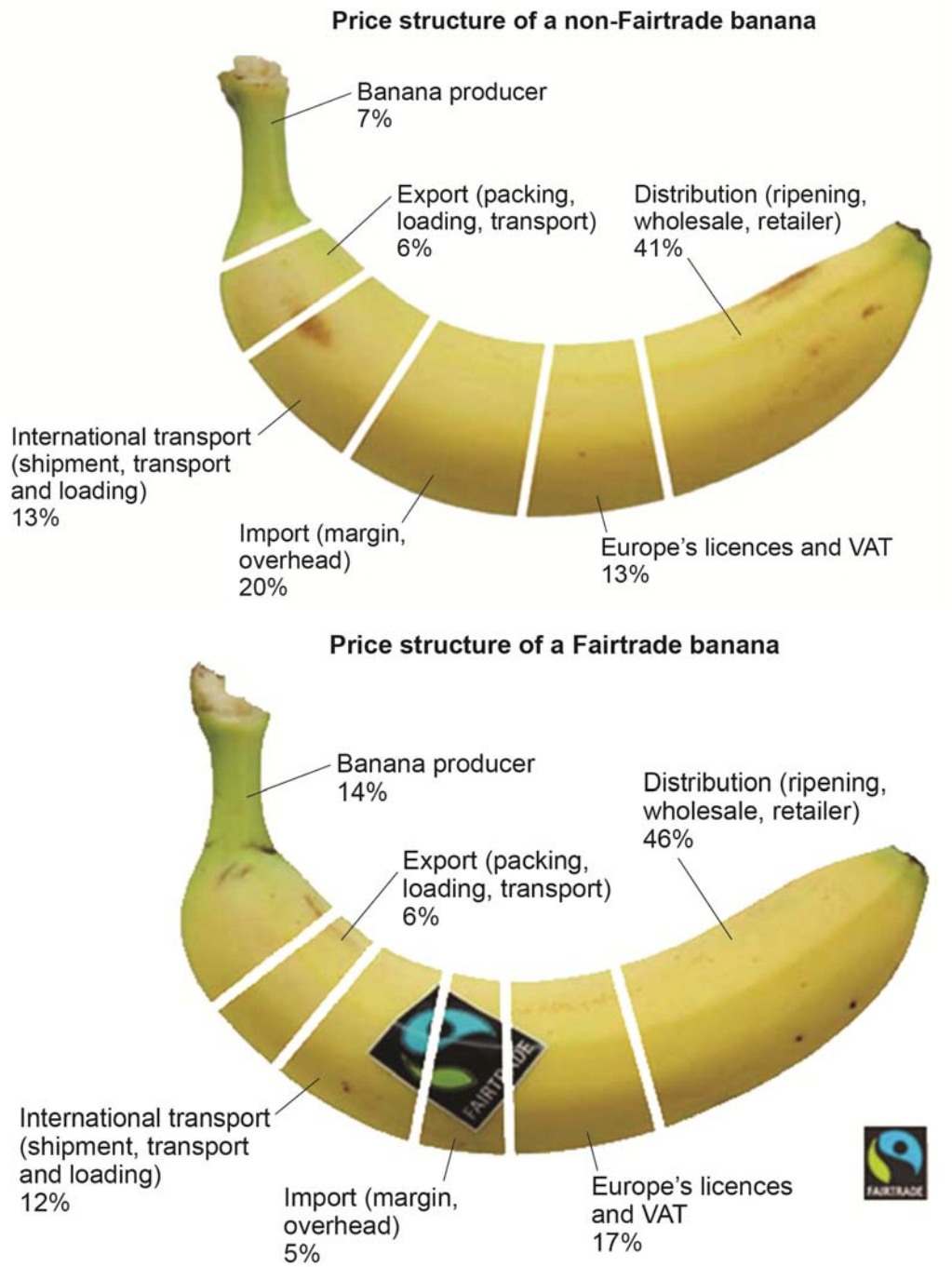
Reason 2: _____

_____

Question 2 continues on the next page

Study **Figure 7**, information about Fairtrade bananas.

Figure 7



Retail sales value of Fairtrade bananas in the UK					
Year	2000	2003	2006	2009	2012
Retail sales value (£ millions)	8.1	24.3	65.6	215.5	242.5

0 2 . 7 Using **Figure 7**

[2 marks]

- Compare the percentage of the price received by the Fairtrade banana producer with that of a non-Fairtrade banana producer.

- Calculate the increase in retail sales value of Fairtrade bananas between 2000 and 2012.

0 2 . 8 Outline **one** way that Fairtrade helps to deal with the problems of unequal development.

[2 marks]

0 2 . 9 Suggest **one** reason why Fairtrade schemes are not always successful.

[2 marks]

Question 2 continues on the next page

0 2 . 10 'Transnational corporations (TNCs) only bring advantages to the host country.'

Do you agree with this statement?

Yes ☐ No ☐

Justify your decision.

[9 marks]

END OF SECTION B

Turn over for Section C

DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED

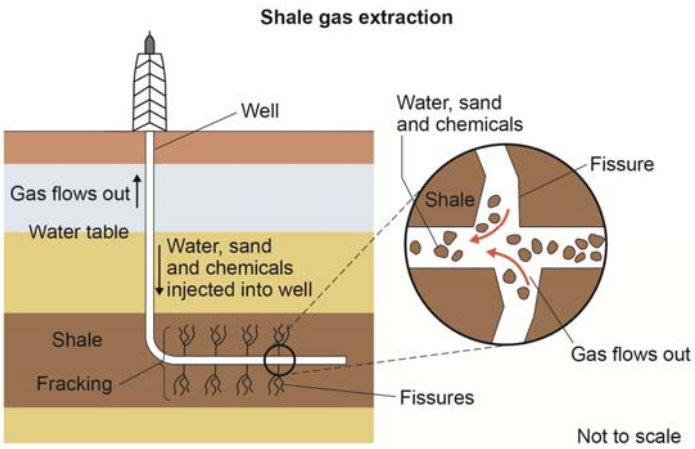
Section C The challenge of resource management

Answer Question 3 and **either** Question 4 **or** Question 5 **or** Question 6.

Question 3 The challenge of resource management

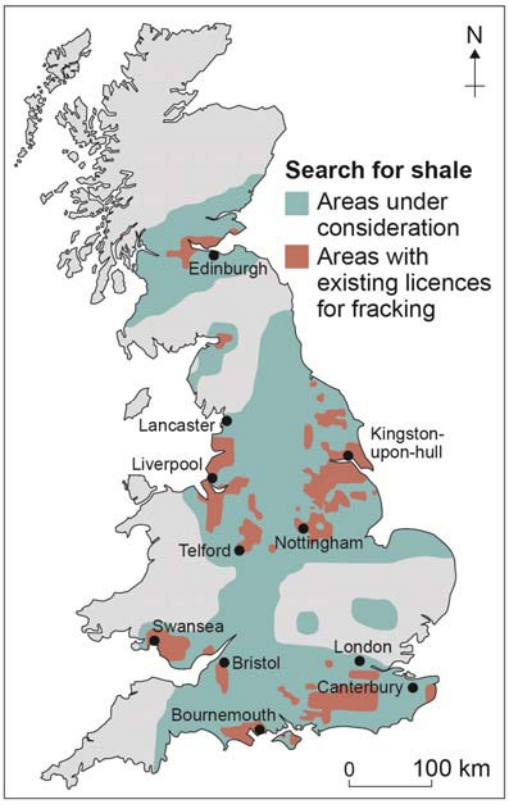
Study **Figures 8** and **9**, information about fracking for gas in the UK.

Figure 8



Fracking or fracturing uses high-pressure water mixed with chemicals to shatter shale rocks and release natural gas. The gas is then piped to the surface. Fracking uses massive amounts of water and may create environmental concerns including the possibility of contaminated groundwater, polluted drinking water, air pollution and minor earth tremors. Fracking of shale gas could contribute significantly to the UK's future energy needs and provide much needed employment. Electricity can be generated at half the carbon dioxide emissions of coal, and much more cheaply than some renewable sources.

Figure 9



0 3 . 1 Suggest **one** reason for the development of fracking in the UK.

[1 mark]

0 3 . 2 Using **Figure 9**, describe the distribution of areas with existing licences for fracking in the UK.

[2 marks]

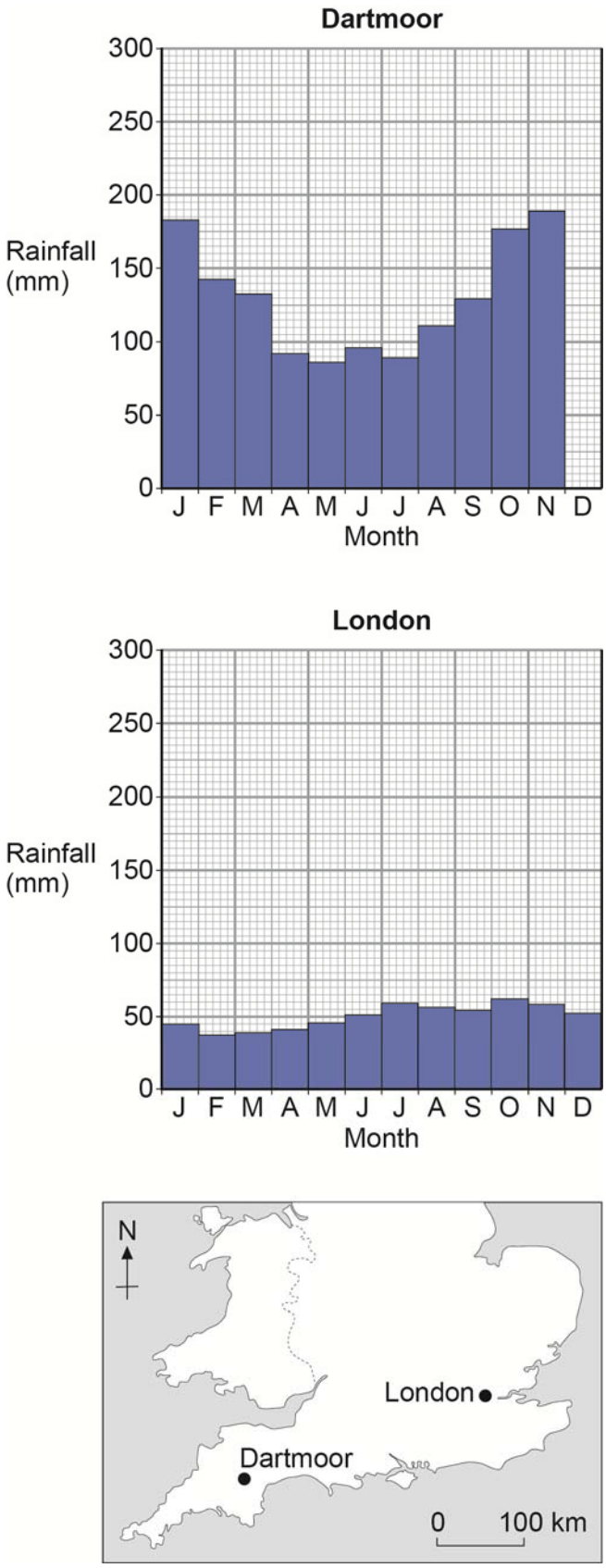
0 3 . 3 With the help of **Figures 8** and **9**, explain why the process of fracking for gas causes conflict between different groups of people.

[6 marks]

Question 3 continues on the next page

Study **Figure 10**, rainfall graphs for Dartmoor and London in the UK.

Figure 10



0 3 . 4 Using **Figure 10**, complete the graph for Dartmoor using the following data for rainfall.

December rainfall 210 mm

[1 mark]

0 3 . 5 State the difference in rainfall between Dartmoor and London in January.

Shade **one** circle only.

A 140 mm ⬭

B 160 mm ⬭

C 180 mm ⬭

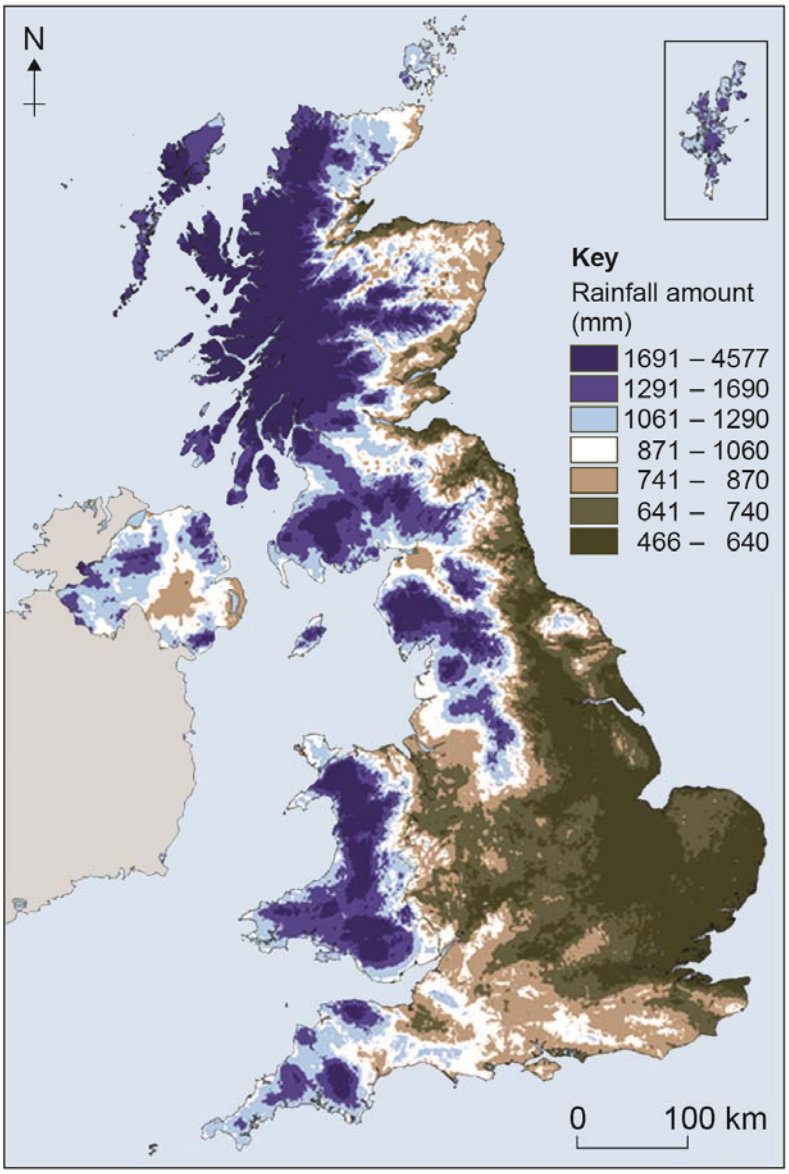
D 200 mm ⬭

[1 mark]

Question 3 continues on the next page

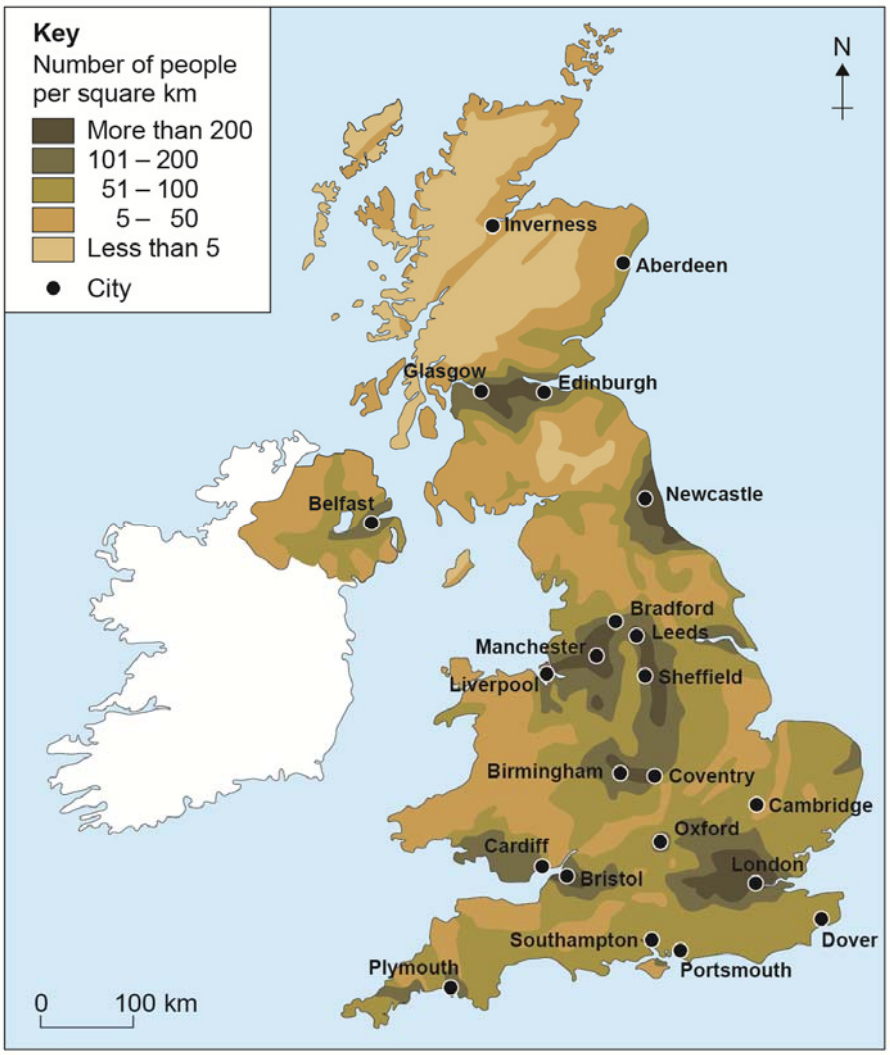
Study **Figure 11**, a map showing average annual rainfall in the UK.

Figure 11



Study **Figure 12**, a map showing population density in the UK.

Figure 12



0 3 . 6 Using **Figures 11** and **12**, suggest why there might be a need for water transfer from one part of the UK to another.

[3 marks]

Answer **either** Question 4 (Food) **or** Question 5 (Water) **or** Question 6 (Energy).

Shade the circle below to indicate which optional question you will answer.

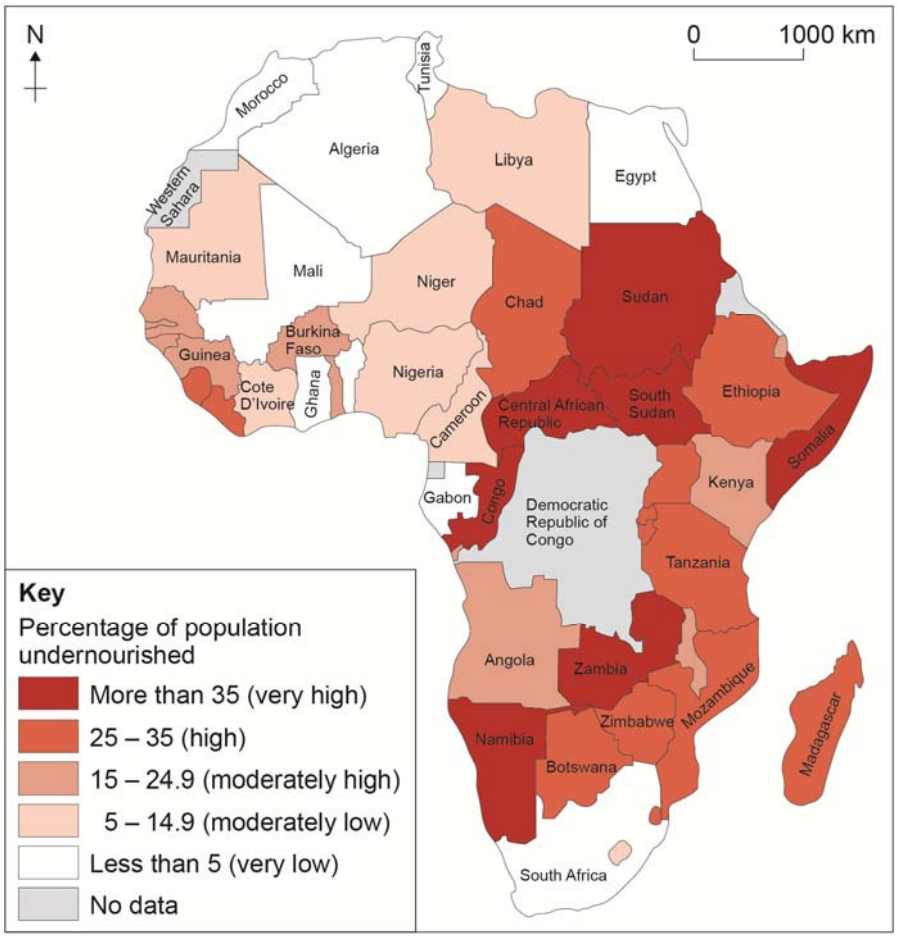
Question 0 4 ⬭ Question 0 5 ⬭ Question 0 6 ⬭

CORRECT METHOD ⬬ WRONG METHODS ⊗ ⊙ ≋ ✓

Question 4 Food

Study **Figure 13**, a map showing the percentage of population that was undernourished in Africa in 2014.

Figure 13



0 4 . 1 What percentage of the population in Chad was undernourished in 2014? Shade **one** circle only.

A 5–14.9% ⬭

B 15–24.9% ⬭

C 25–35% ⬭

D More than 35% ⬭

[1 mark]

0 4 . 2 Using **Figure 13**, describe the distribution of countries in Africa where there are high and very high levels of undernourishment.

[2 marks]

0 4 . 3 Give **two** causes of food insecurity.

[2 marks]

Cause 1:

Cause 2:

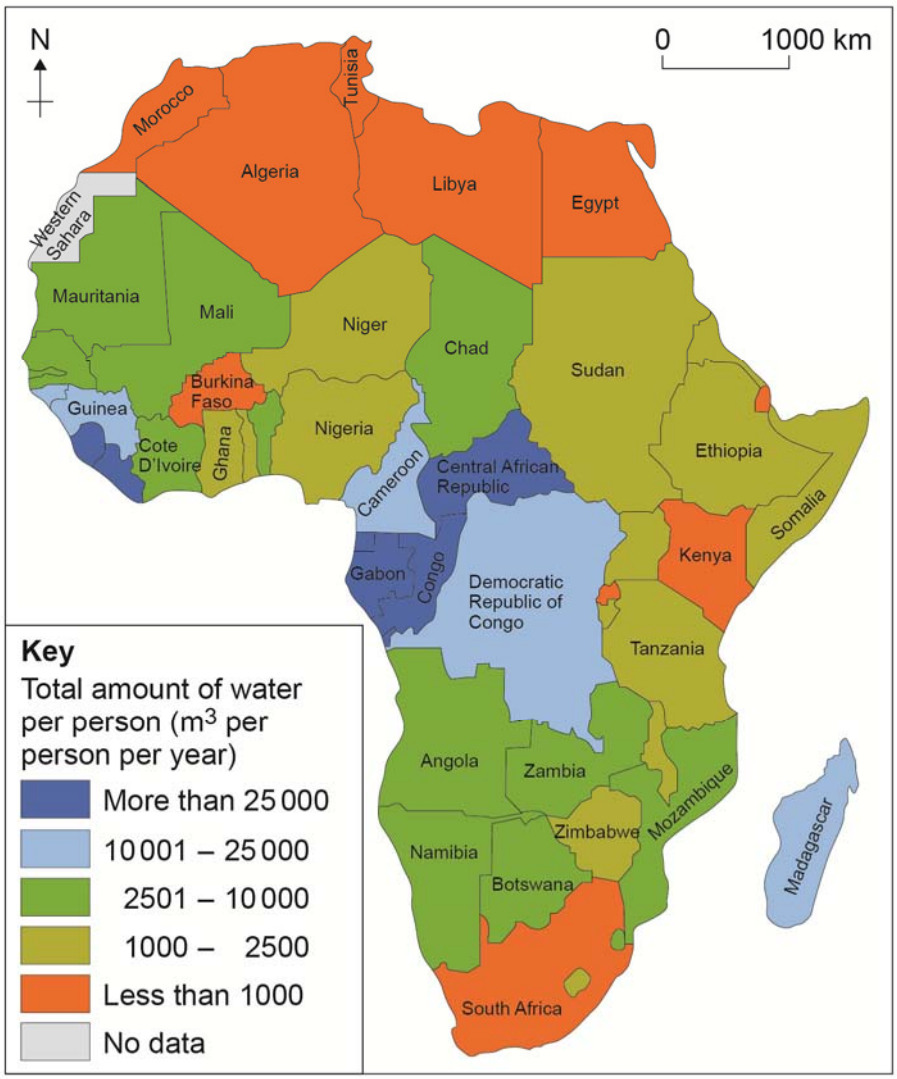
0 4 . 4 Explain how food security can be improved.

[6 marks]

Question 5 Water

Study **Figure 14**, a map showing the total amount of water available per person in Africa in 2010.

Figure 14



0 5 . 1 What was the total amount of water per person in Ethiopia in 2010?

Shade **one** circle only.

A Less than 1000 cubic metres per person per year

B 1000–2500 cubic metres per person per year

C 2501–10 000 cubic metres per person per year

D 10 001–25 000 cubic metres per person per year

[1 mark]

0 5 . 2 Using **Figure 14**, describe the distribution of countries in Africa where there was less than 1000 cubic metres of water per person per year in 2010.

[2 marks]

0 5 . 3 Give **two** causes of water insecurity.

[2 marks]

Cause 1:

Cause 2:

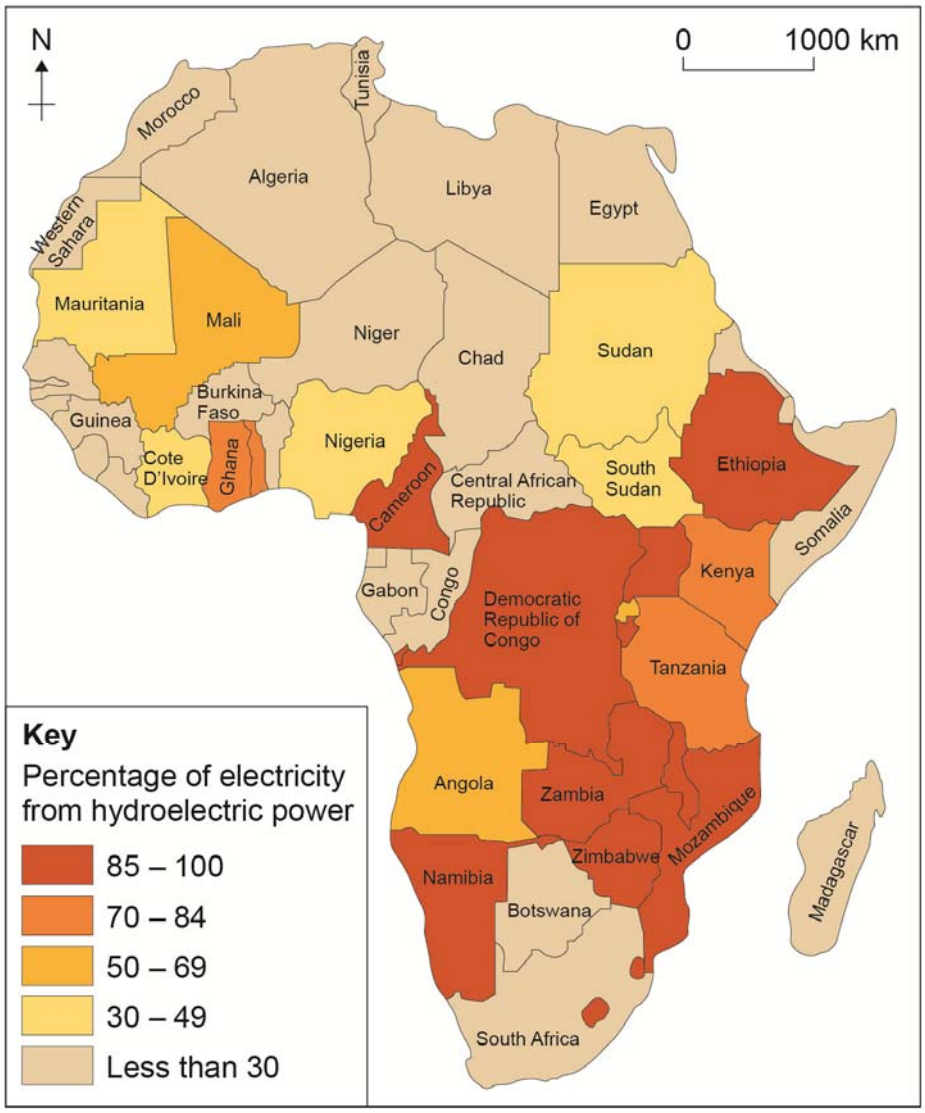
0 5 . 4 Explain how water security can be improved.

[6 marks]

Question 6 **Energy**

Study **Figure 15**, a map showing the percentage of electricity from hydroelectric power in Africa.

Figure 15



0 6 . 1 What is the percentage of electricity from hydroelectric power in Mauritania?

Shade **one** circle only.

A 30–49% ⬭

B 50–69% ⬭

C 70–84% ⬭

D 85–100% ⬭

[1 mark]

0 6 . 2 Using **Figure 15**, describe the distribution of countries in Africa where the percentage of electricity from hydroelectric power is 85% or more.

[2 marks]

0 6 . 3 Give **two** causes of energy insecurity.

[2 marks]

Cause 1:

Cause 2:

0 6 . 4 Explain how energy security can be improved.

[6 marks]

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