

CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

**GEOGRAPHY**

**0460/02**

Paper 2

May/June 2003

Additional Materials: Answer Booklet/Paper  
Ruler

**1 hour 45 minutes**

**READ THESE INSTRUCTIONS FIRST**

If you have been given an Answer Booklet, follow the instructions on the front cover of the Booklet.  
Write your Centre number, candidate number and name on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **three** questions.

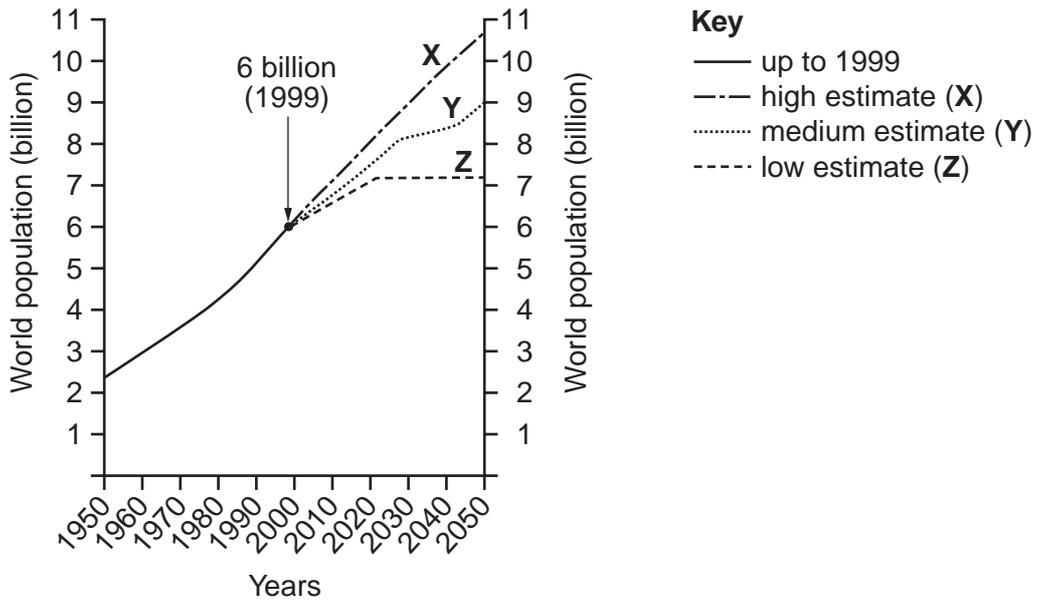
At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [ ] at the end of each question or part question.

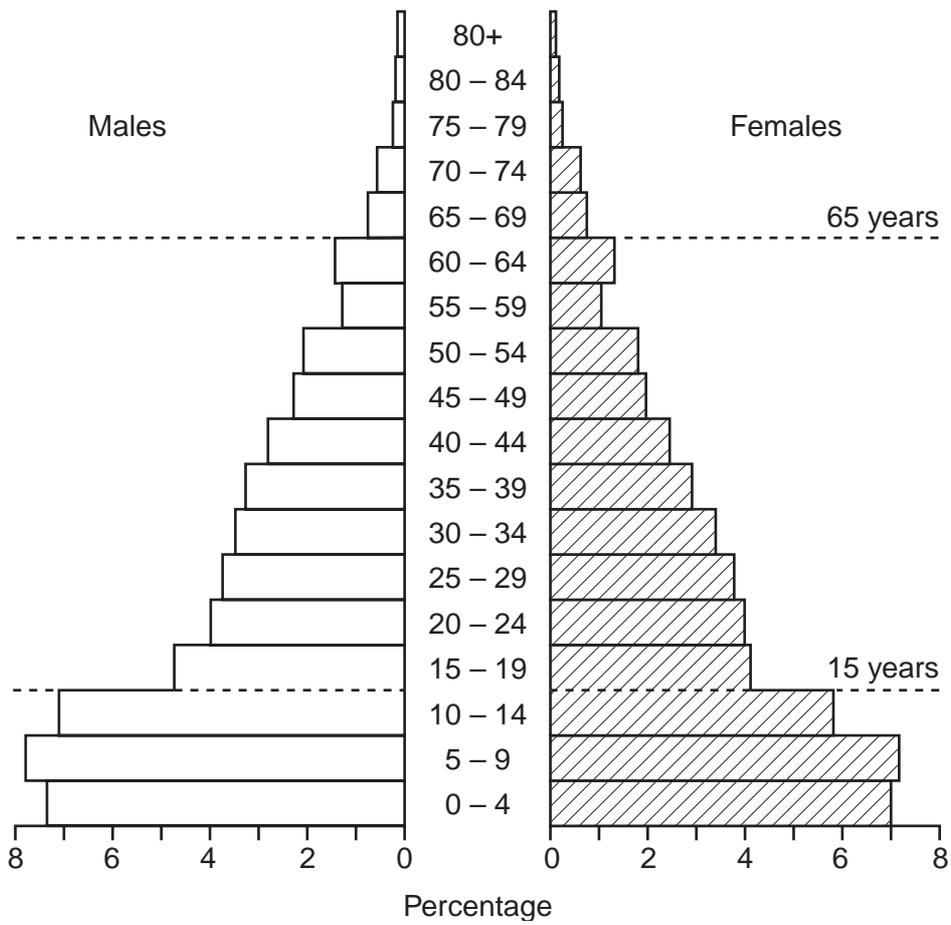
Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

- 1 (a) Fig. 1 was produced by the United Nations. It shows the actual growth in the world's population by 1999. It also shows that the world's population may grow in three possible ways by 2050 (estimates **X**, **Y** and **Z**).
- (i) Describe *fully* what the graph shows about population growth.
  - (ii) How and why do the two estimates for future population growth **X** and **Y** differ? [2]
  - (iii) Suggest why the future growth of the world's population might be as shown by estimate **Z**. [2]
- (b) With reference to examples you have studied, explain why
- (i) changes may occur in countries from time to time in
    - A** the birth rate,
    - B** the death rate; [7]
  - (ii) governments may be concerned by a rapid growth of population. [5]
- (c) Describe the main features of the population pyramid of a developing country shown in Fig. 2 and suggest reasons for these features. [6]

**Total world population (actual and estimated 1950–2050)**



**Fig. 1**



**Fig. 2**

- 2 (a) Fig. 3 (opposite) shows part of a large urban area in a developed country. With reference to information from Fig. 3 and other facts you may know, suggest reasons for each of the following:
- (iii):
- (i) the location of
    - A the large superstore/hypermarket labelled X, [4]
    - B the district shopping centre labelled Y, [3]
  - (ii) differences in the numbers and distribution of different types of shopping areas shown, [3]
  - (iii) the different road pattern in area Z when compared with the road pattern in other residential areas further away from the CBD. [2]
- (b) Choose **two** of the following types of urban land use (I–III);
- I leisure centre or sports ground,
  - II bus and railway stations,
  - III offices.

Referring to a *named* town or city you know well, describe and explain the distribution of your chosen urban land uses. [4,4]

- (c) The area surrounding towns and cities is known as the rural-urban fringe. An example of this area is shown on Fig. 3. Why do many town and city authorities control the developments which may take place in the rural-urban fringe? [5]

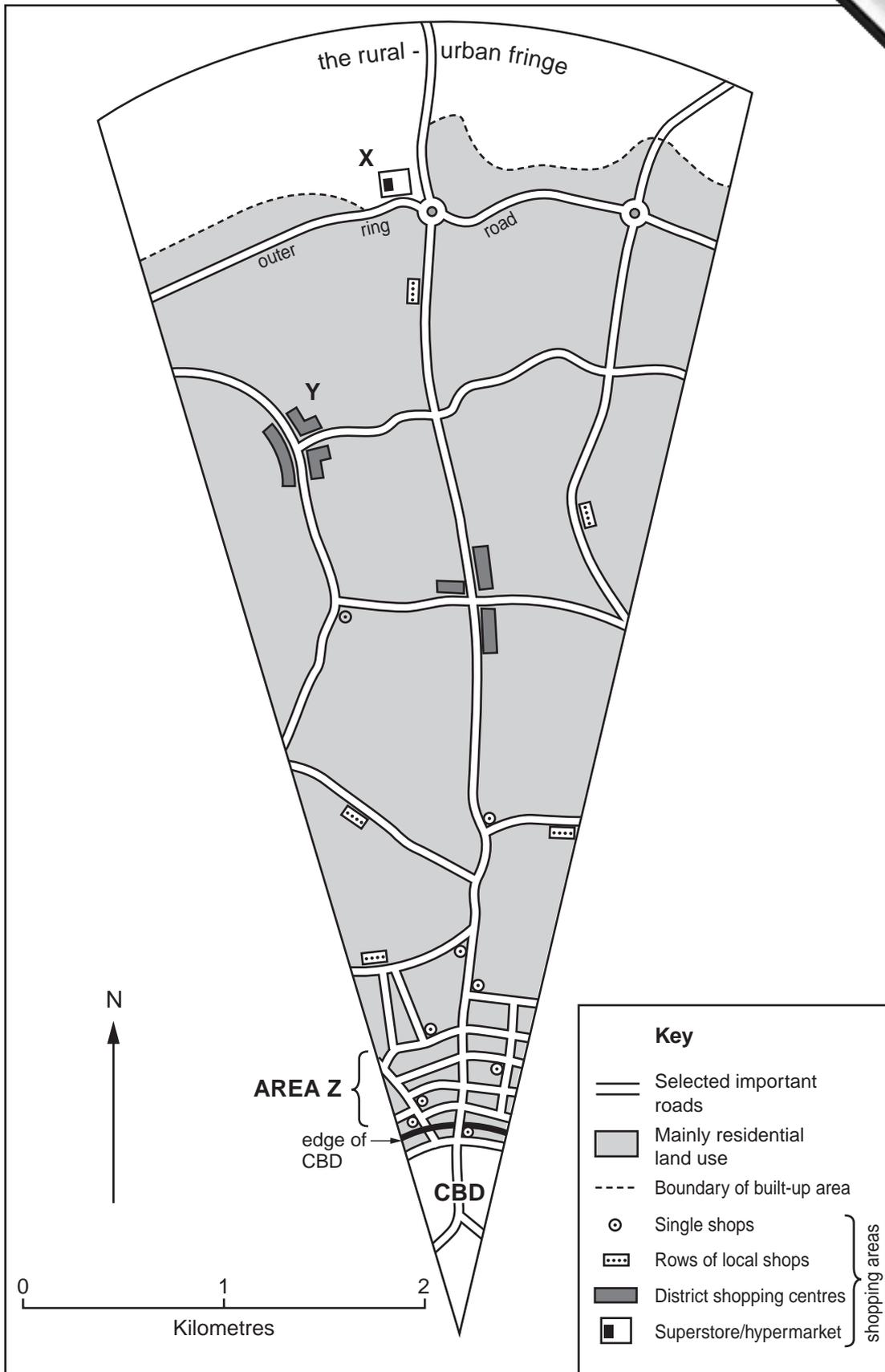


Fig. 3

- 3 (a) (i) Explain how a river transports its load of large rocks and smaller materials. [4]
- (ii) What changes in a river cause it to deposit some of the load it is carrying?
- (b) Photograph A (opposite) shows the Victoria Falls on the River Zambezi in Africa. The location and area surrounding the Victoria Falls are shown on Fig. 4 (opposite).
- With the help of information from the photograph and map:
- (i) describe the main features of the Zambezi River and its valley, including the waterfall, [6]
- (ii) suggest how the river and valley features shown have influenced the lives of people in the area. [5]
- (c) Explain how the work of a river and rock structure influence the formation of a waterfall and its retreat upstream. [6]



Photograph A

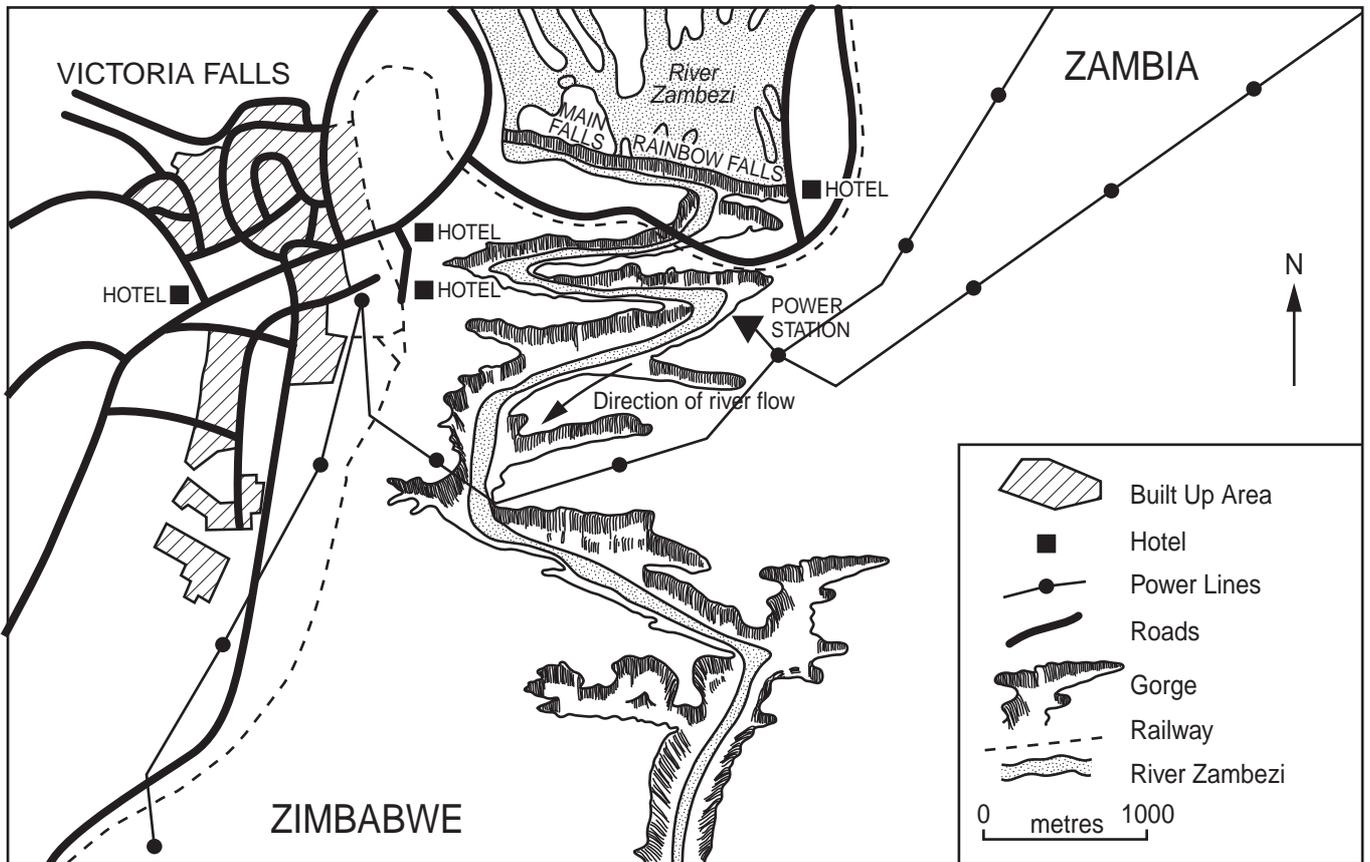


Fig. 4

- 4 (a) (i) Describe the main features of the climate of an area of tropical rain (evergreen forest) as shown in Fig. 5 below.
- (ii) With the aid of labels *only*, added to Fig. 6 (insert), describe the characteristics of a tropical rain forest.
- (iii) How are the characteristics of tropical rain forest you have described in (a)(ii) related to the climate features you have given in (a)(i)? [4]

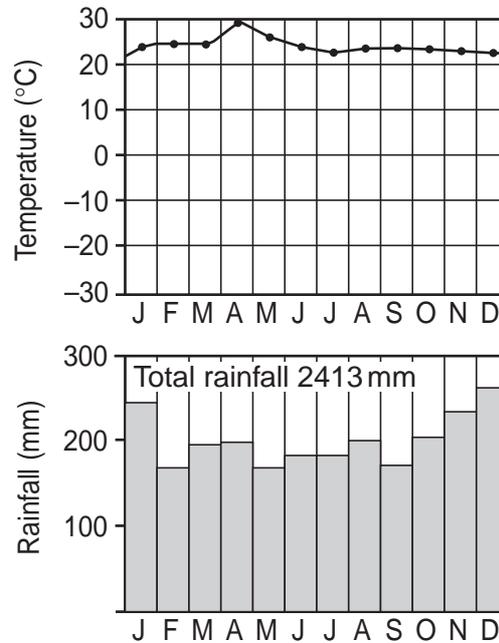


Fig. 5

- (b) (i) Study the extract from a newspaper account opposite (Fig. 7) which was written about deforestation in the tropical rain forest of the Amazon Basin in Brazil in May 2001.
- Use this information together with other facts you may know, to suggest why the writer of the newspaper account refers to deforestation which has taken place in the Amazon rainforest region as
- A** 'an economic disaster' and [3]
- B** 'an environmental disaster'. [4]
- (ii) Give your views, with reasons, on the need to conserve natural environments, such as the tropical rain forest of the Amazon Basin. [5]

**E**mpty fields, as far as the eye can see, line the highway for most of the 300 km from Belem, eastern Amazonia's main city, to the timber-cutting town of Paragominas. Once it was all forest, but since the 1970s most of the trees in a broad strip beside the road have been cut, not just to extract timber, but to clear pasture for cattle-raising, encouraged by government grants. Now, though, most of the fields lie empty and are becoming overgrown with scrub. Cattle are now seen infrequently.

This deforestation, has been both an economic disaster and an environmental disaster. The usable timber would be ripped out of a stretch of forest and the rest would then be burned, because the land would often be worth more when cleared than it had been as untouched forest.

When farming was actually tried, it was frequently found to be unprofitable.

**Fig. 7**

- 5 (a) Give reasons for the differences shown on Fig. 8 in the percentage employment in the three sectors of the economy in the two groups of countries X and Y.



Fig. 8

- (b) Explain how *at least four* of the following factors have influenced a motor vehicle industry to become established at a named location you have studied:

- labour,
- components and other raw materials,
- siting factors,
- capital,
- transport,
- markets.

[10]

(c) Fig. 9 shows a diagram which may be used to describe a farming system.

With reference to the ideas in the diagram and other facts you may know, describe of small-scale cash-crop farming.

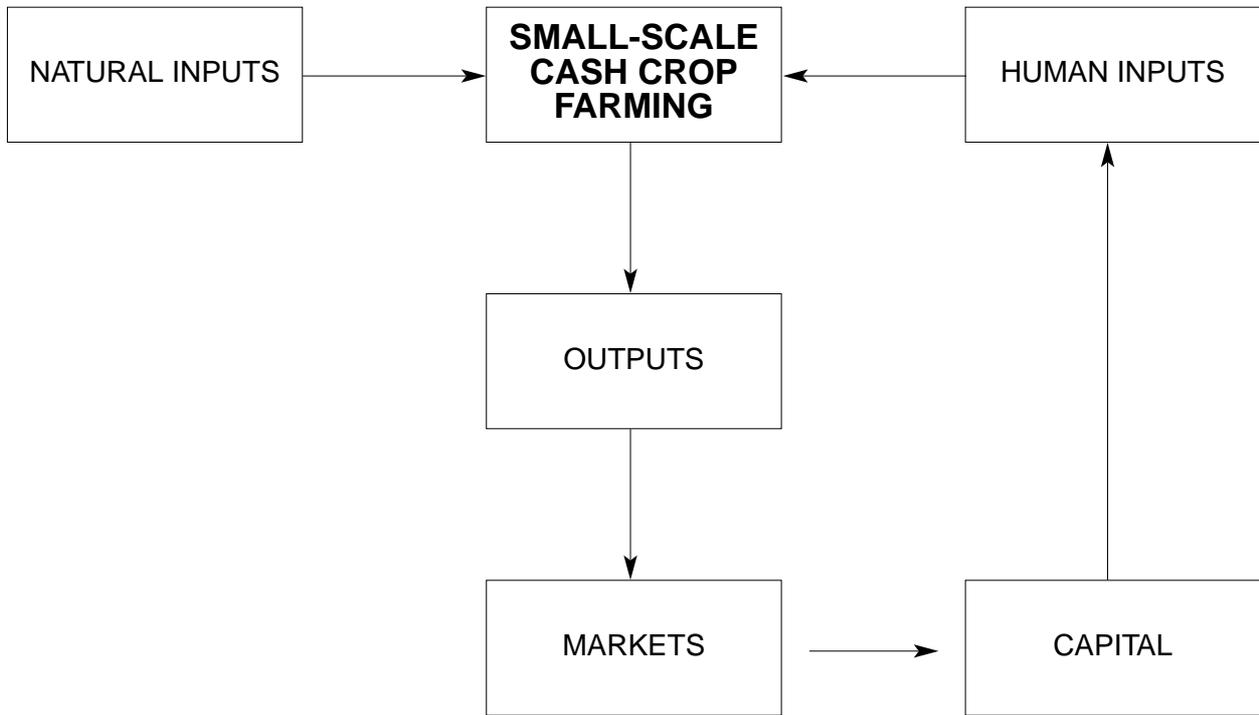


Fig. 9

- 6 (a) Study Fig. 10 which shows some of the changes in global energy use from 1990 to 2000.

Global energy use, 1990-2000  
annual average % change

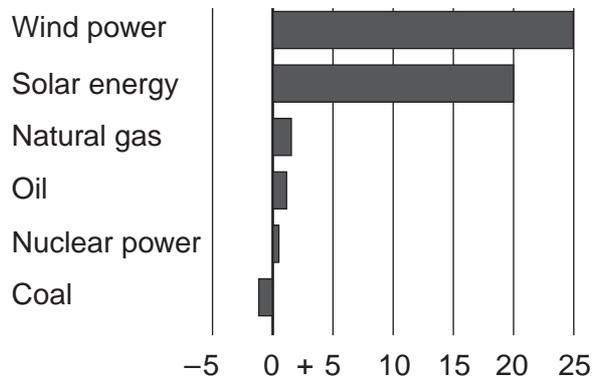


Fig. 10

Suggest reasons why from 1990 to 2000:

- (i) the use of nuclear energy expanded by only a small amount, [4]
- (ii) the use of coal declined, [5]
- (iii) there was a considerable increase in the use made of wind power and solar energy. [4]
- (b) As tourism increases in importance in areas of natural beauty, there is a need to protect the environment and the well being of local people. Eco-tourism is a term used when tourism is developed whilst at the same time the natural environment is carefully protected. For a named area of natural beauty which attracts tourists:
- (i) explain why tourists are attracted to the area; [4]
- (ii) explain how **eco-tourism** would bring benefits to the area; [4]
- (iii) describe how eco-tourism may be developed. [4]

Copyright Acknowledgements:

- Fig. 1. Hazel Barrett. *Six Million and Counting*. Published by the Geographical Association.  
 Photograph A. © D Barton.  
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