

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

GEOGRAPHY

0460/01

Paper 1

October/November 2005

Additional Materials: Answer Booklet/Paper

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.

The insert contains Photograph A for Question 4 and Figures 10A and 10B for Question 6.

This document consists of **13** printed pages, **3** blank pages and **1** insert.



1 (a) Study Figs 1A and 1B, which show information about HIV/AIDS in southern Africa.

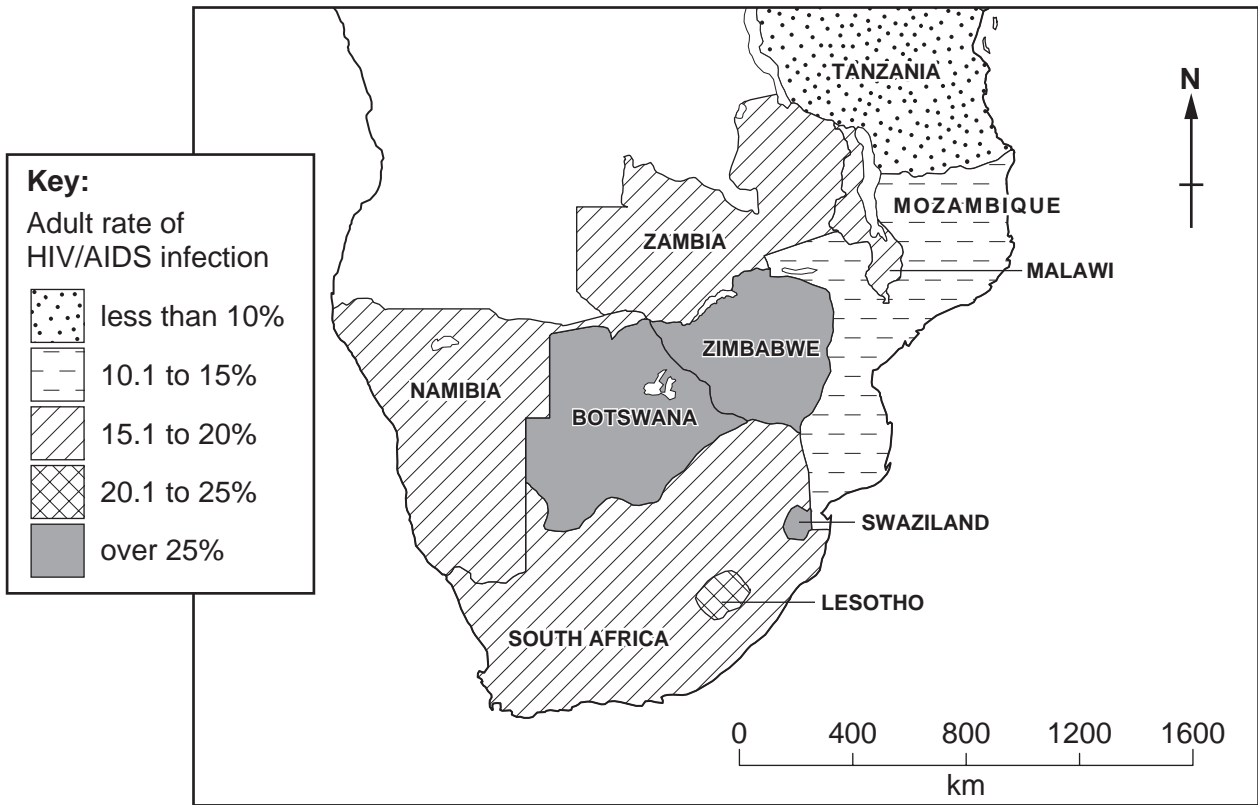


Fig. 1A

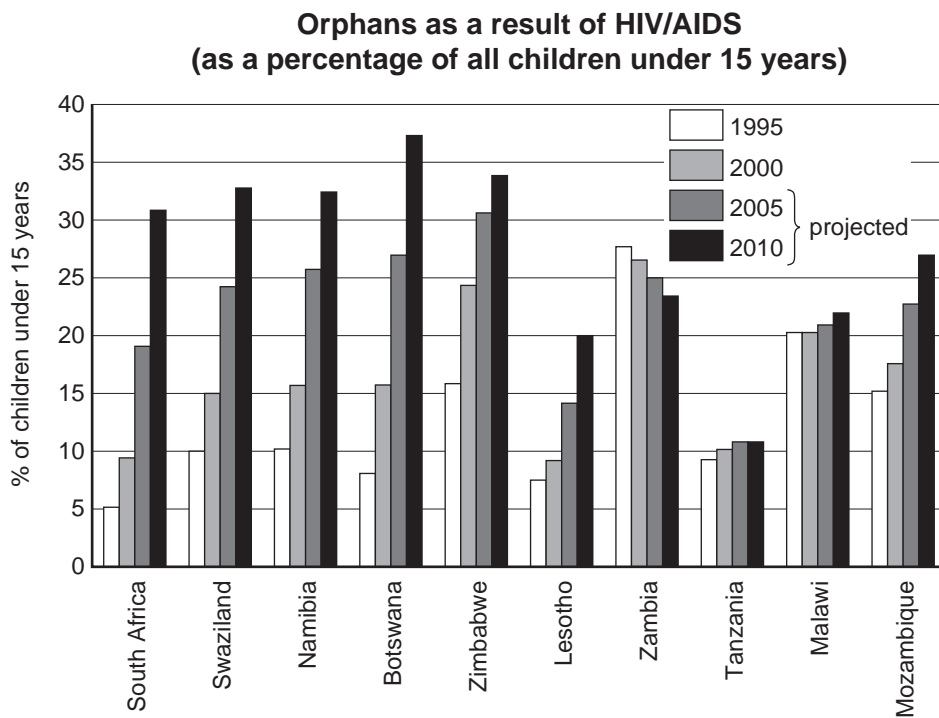


Fig. 1B

(i) Use Fig. 1A to name one country where over 25% of the adult population are infected with HIV/AIDS. [1]

(ii) Use the information in Fig. 1B to:

A. state the percentage of children who will be orphans as a result of HIV/AIDS in Lesotho in 2010,

B. name a country where the expected percentage of orphans will be decreasing by 2010. [2]

(iii) Using only information from Figs 1A and 1B, compare the impacts of HIV/AIDS in Botswana and Tanzania. [3]

(iv) Suggest the likely impacts of HIV/AIDS on the economies of those countries where rates of infection are high. [4]

(b) Study Fig. 2 which shows the predicted population pyramid for Botswana in 2020.

The overall shape shows what the pyramid would be like if there was no threat from HIV/AIDS. The white pyramid shows what is likely to happen as a result of HIV/AIDS.

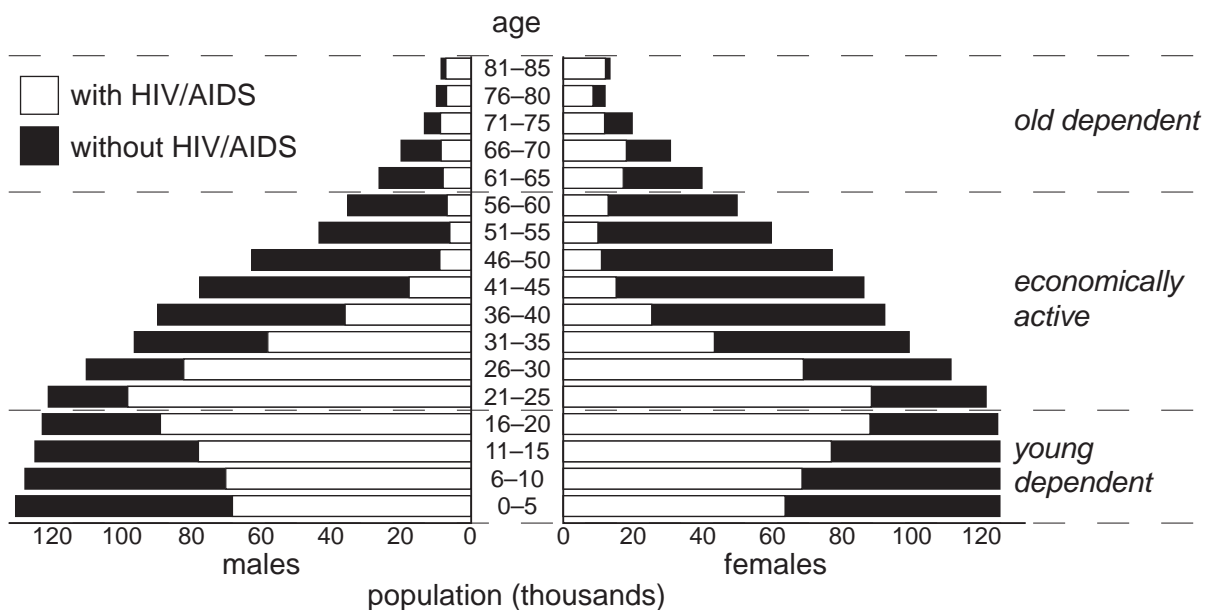


Fig. 2

Describe the likely impacts of HIV/AIDS on the size and structure of Botswana's population. [3]

(c) Describe the different ways by which the dependent population is supported in developed and developing countries. [5]

(d) What strategies are being used to try to reduce the spread of disease in developing countries? You may refer to examples which you have studied. [7]

2 (a) Study Figs 3A and 3B which show information about the percentage of people living in urban settlements in different parts of the world.

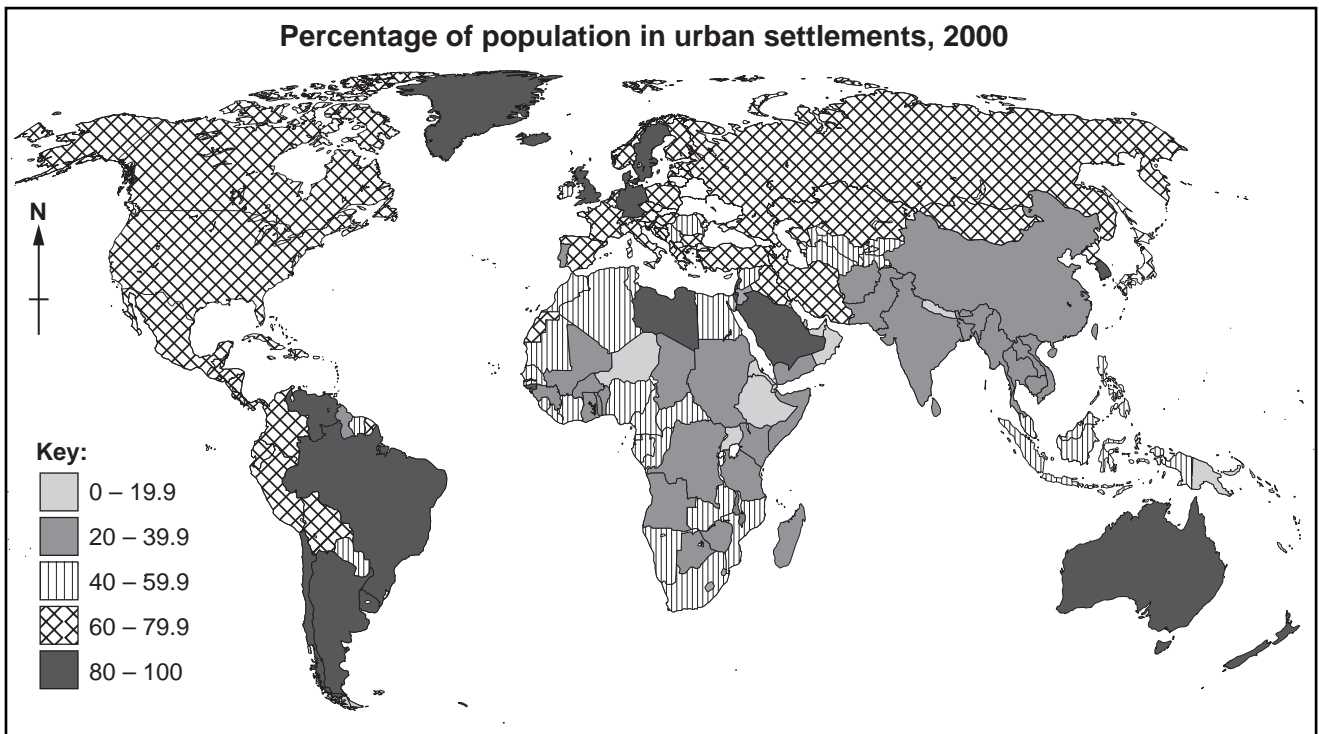


Fig. 3A

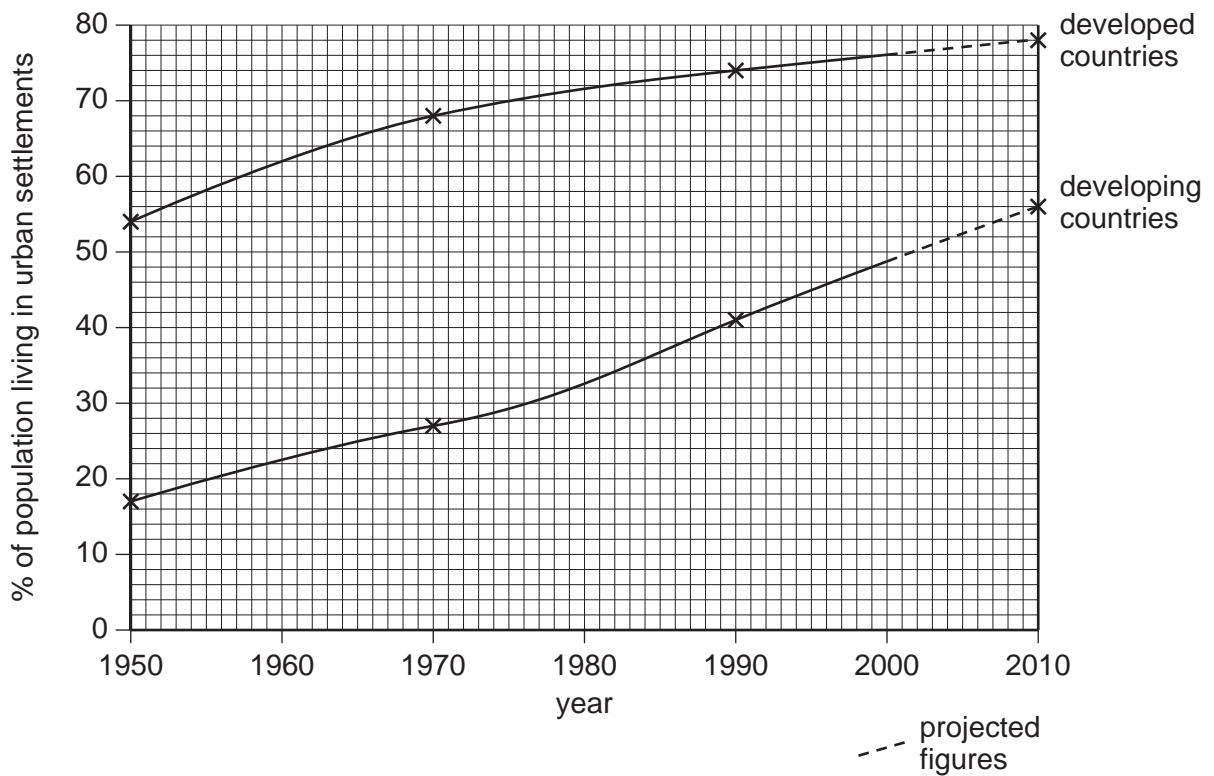


Fig. 3B

- (i) What is an *urban settlement*? [1]
- (ii) Using **only information from Fig. 3A** name:
 A. a country where over 80% of the population lives in urban settlements,
 B. a continent in which most countries have between 20% and 59.9% of their population living in urban settlements. [2]
- (iii) Using **only information from Fig. 3B**, compare the changes in the growth rates of the urban population in developed and developing countries. [3]
- (iv) Suggest reasons for the different growth rates of the urban population in developed and developing countries. [4]

(b) Study Fig. 4, a map of part of the urban settlement of Dhaka, Bangladesh.

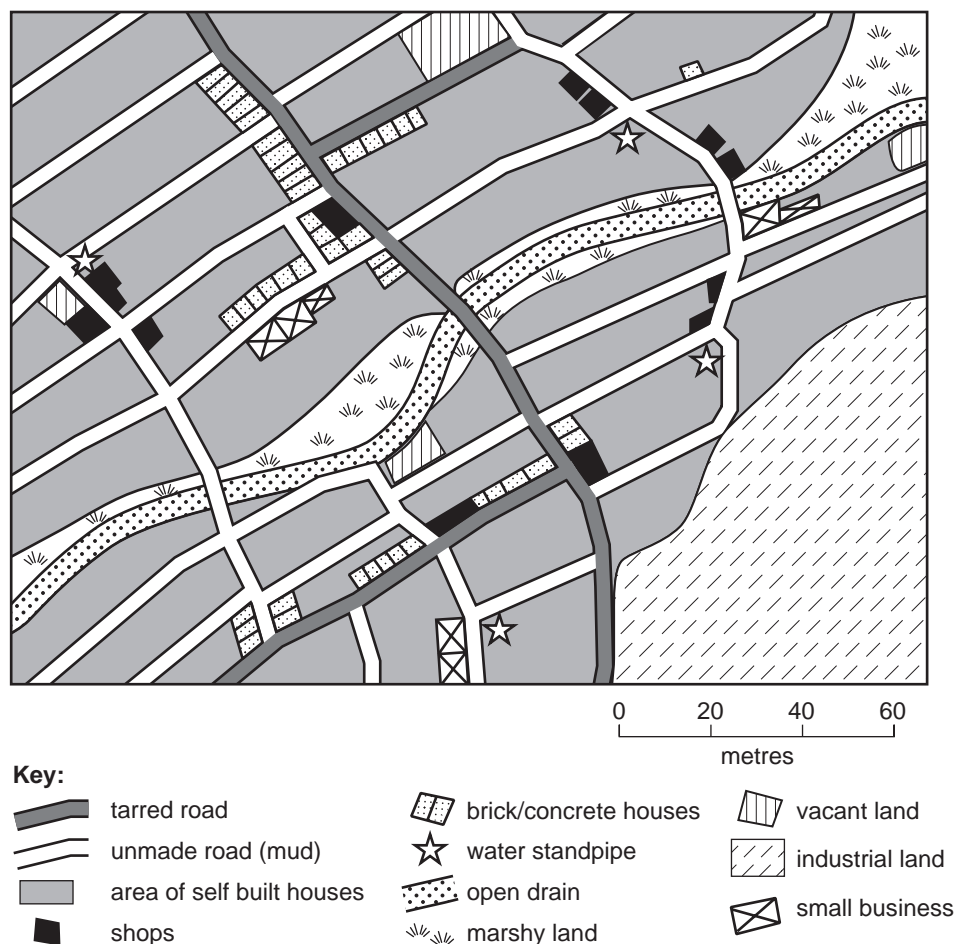


Fig. 4

- (i) Give **three** pieces of map evidence which suggest that this area is part of a squatter settlement and not occupied by high cost housing. [3]
- (ii) Suggest why many people living in rural areas in developing countries made the decision to migrate to urban settlements such as Dhaka. [5]
- (c) Describe what has been done to improve the quality of life in squatter settlements in developing countries. You may refer to examples which you have studied to illustrate your answer. [7]

- 3 (a) Study Fig. 5 which is a sketch of Mount Etna during a volcanic eruption in 1983.

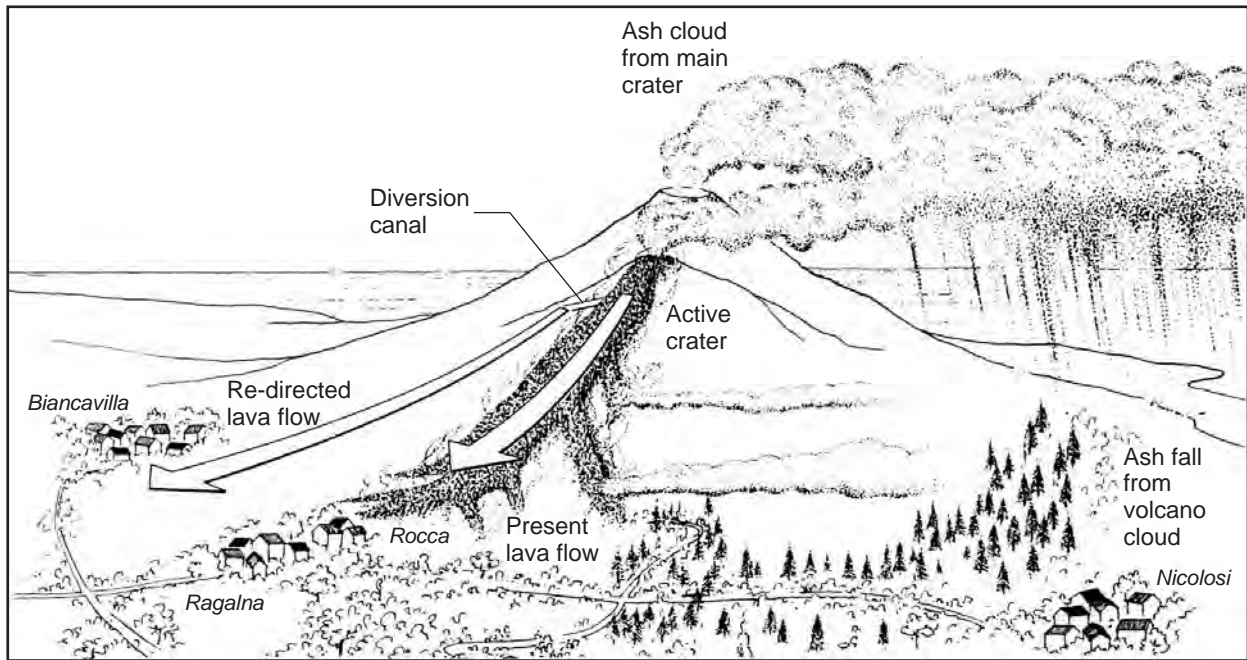


Fig. 5

- (i) Mount Etna is an *active volcano*. What does this mean? [1]
- (ii) Identify the main hazard from the volcanic eruption which threatened:
- A. Rocca and Ragalna,
- B. Nicolosi. [2]
- (iii) Describe the possible impacts of the volcanic activity shown by Fig. 5 on the people who lived close to Mount Etna. [3]
- (iv) Describe what can be done to protect people from volcanic eruptions. [4]
- (b) Study Figs 6A and 6B (opposite) which show information about the eruptions of Mount Etna.
- (i) Use evidence from Fig. 6A only to compare the lava flows of 1923 and 1983. [3]
- (ii) Explain how volcanoes are formed at destructive plate boundaries such as the one shown in Fig. 6B. You may use a labelled diagram in your answer. [5]
- (c) Many people live close to the volcanoes which are shown in Fig. 6B. Explain why people choose to live close to active volcanoes. You may refer to examples which you have studied. [7]

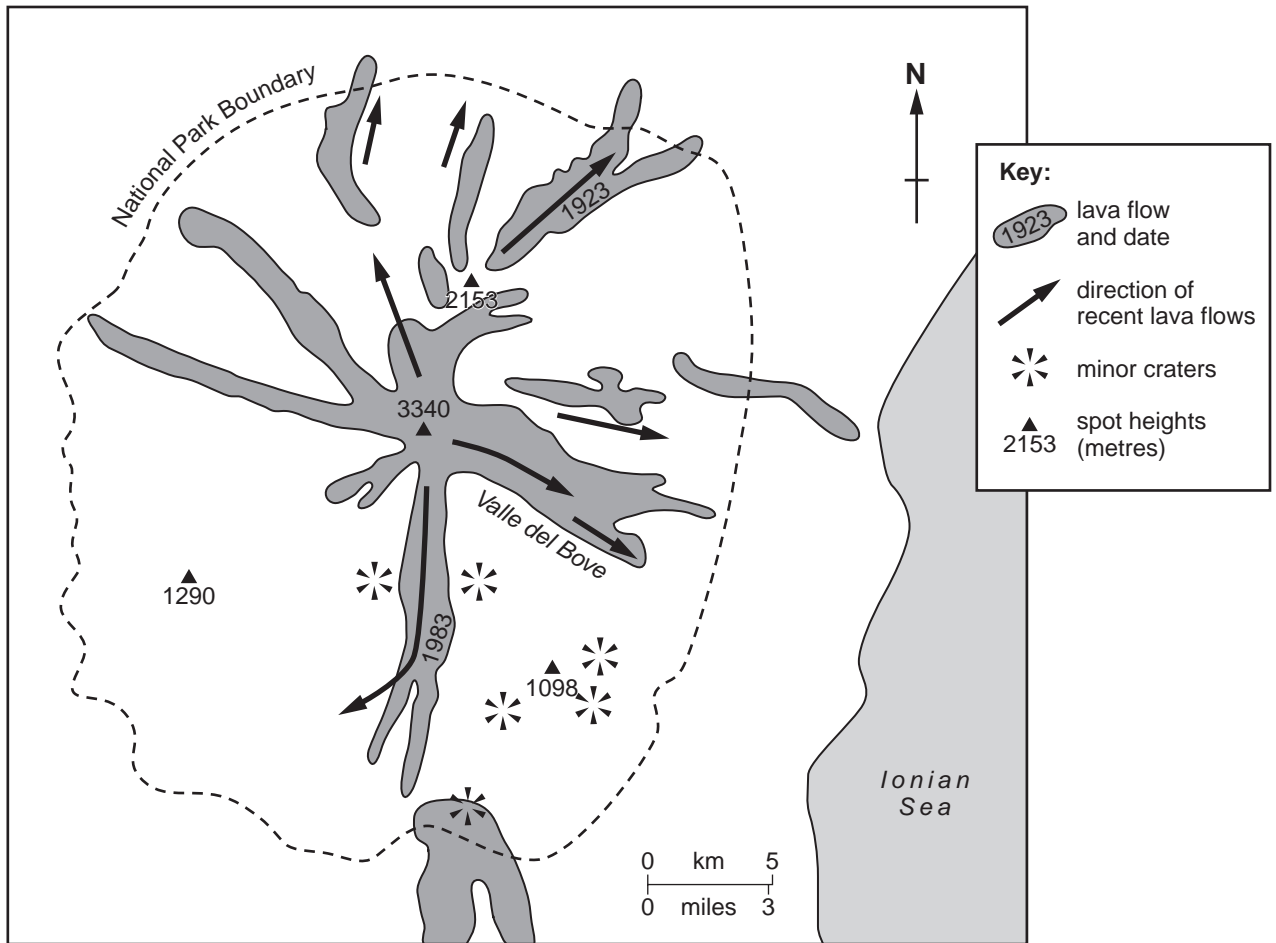


Fig. 6A

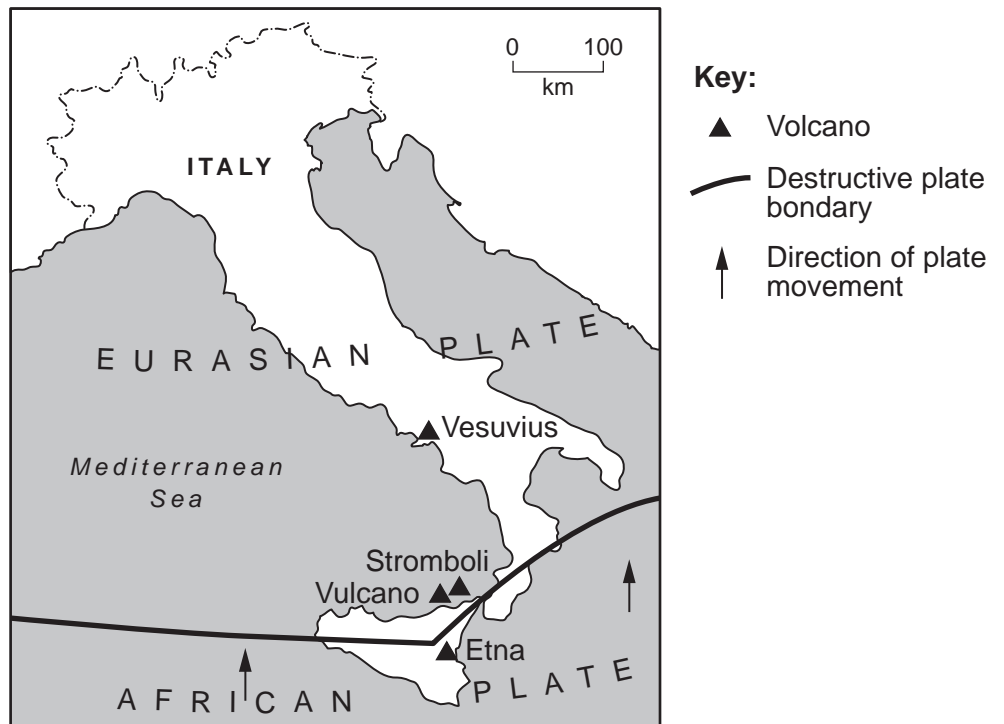


Fig. 6B

- 4 (a) Study Fig. 7 which shows the drainage basin of a river.

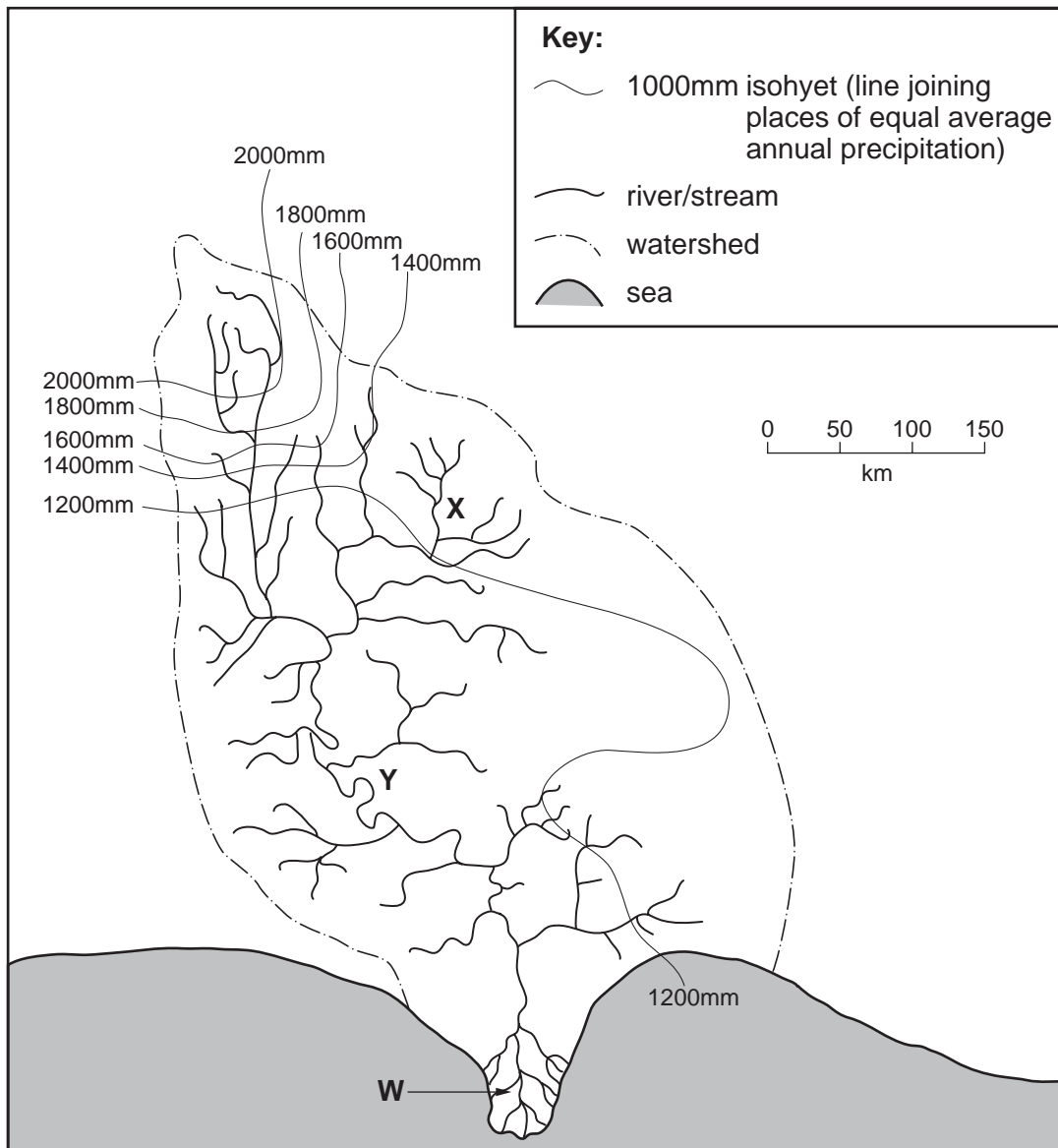


Fig. 7

- (i) What is the average annual precipitation at point **X**? [1]
- (ii) What is meant by the terms:
- A.** drainage basin,
- B.** watershed? [2]
- (iii) Describe and suggest reasons for the likely differences in discharge of the river at points **X** and **Y**. [3]
- (iv) What natural feature is shown at **W**? Explain how this feature may have been formed. [4]

(b) Study Photograph A (Insert) which shows an upland river and its valley.

(i) Describe the main features of the river and valley which are shown in Photograph A. [3]

(ii) Explain how natural processes of weathering and erosion shape river valleys such as the one shown in Photograph A. You may use labelled diagrams in your answer. [5]

(c) Many people live and work on the flood plains of major rivers.

Describe the advantages and difficulties for people of living on the flood plain of a river. You may refer to examples which you have studied. [7]

- 5 (a) Study Fig. 8 which shows the distribution of industrial areas in Brussels, the capital city of Belgium.

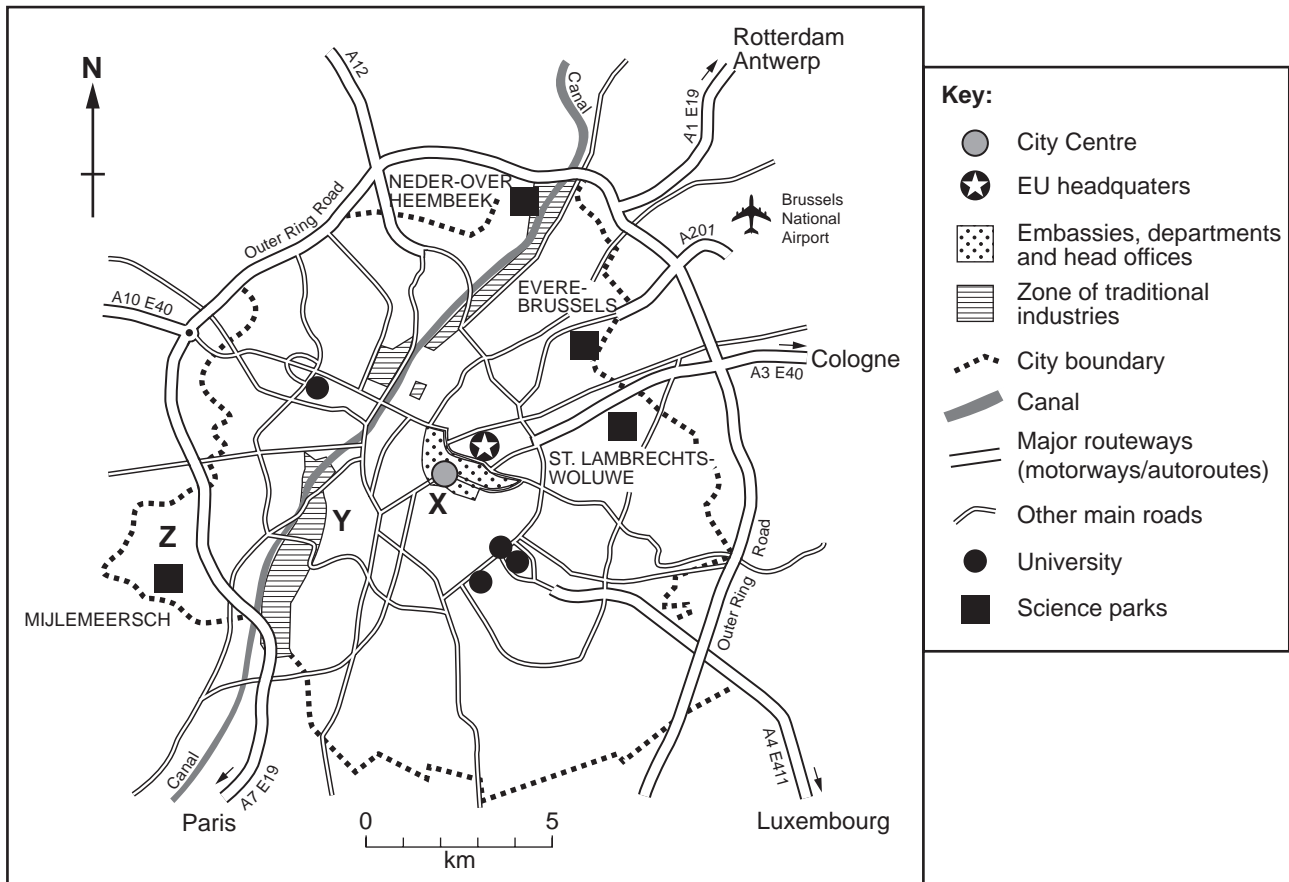


Fig. 8

- (i) Using evidence only from Fig. 8, give **one** reason for the location of the traditional industries. [1]
- (ii) Which science park is located:
- A. next to an area of traditional industry,
- B. 5 km NE of the city centre? [2]

- (iii) Study Table 1 which shows the different locations in Brussels which a firm making electrical components has occupied in recent years. These are labelled on Fig. 8 as **X**, **Y** and **Z**.

Table 1

Date	Place	Area	Employees	Work area	Land value per m ²
1979	X	140m ²	13	Room above garage	Very expensive
1987	Y	325m ²	70	Old existing building	Expensive
2000	Z	65 000m ²	600+	Purpose built building in a science park alongside a motorway	Less expensive

Suggest **three** reasons why the firm moved from location **X** to location **Y** in 1987. [3]

- (iv) Using information from Fig. 8 and Table 1, suggest reasons for the location and development of science parks in Brussels. [4]

Question 5 continues on page 12

(b) Study Fig. 9 which shows where major manufacturers assemble cars in Eastern Europe.

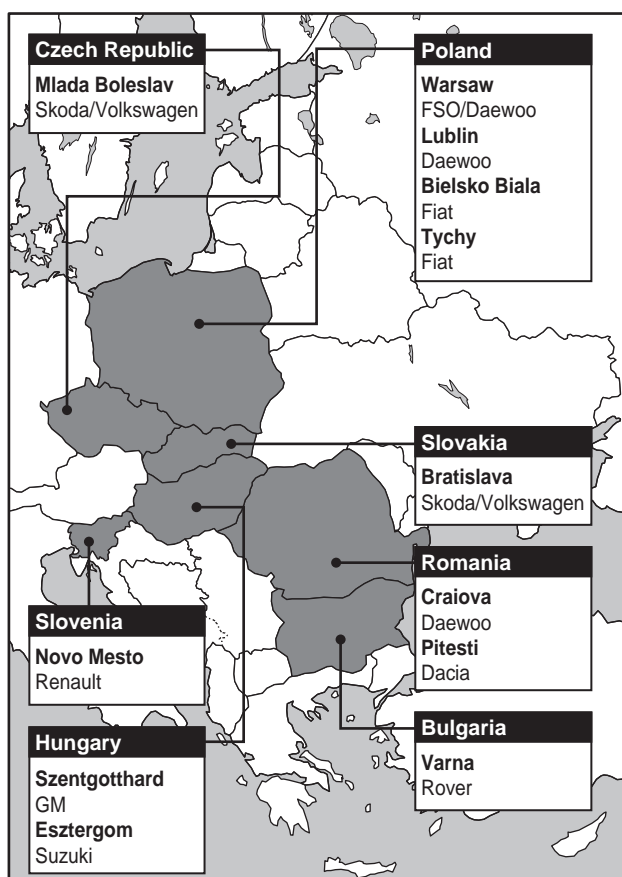


Fig. 9

- (i) Suggest reasons why some of the world's major manufacturers have located car assembly plants in Eastern Europe. [3]
- (ii) Explain why the building of new car assembly plants would be welcomed in countries such as these. [5]
- (c) Describe and explain the factors which encourage the development of craft industries. You may refer to examples which you have studied. [7]

- 6 (a) Study Figs 10A and 10B (Insert) which show the Kaiparowits Plateau area in the state of Utah, USA in 1960 and 2000.
- (i) Use Fig. 10A to state which of the following occupied most land in 1960.
- residential areas
wilderness areas
farmland
roads and railways [1]
- (ii) Use Fig. 10B to identify the names of:
- A. the National Forest north of Henrieville,
B. the wilderness area immediately to the east of the Paria River. [2]
- (iii) Use the information in Figs 10A and 10B to identify **three** changes which took place in the Kaiparowits Plateau area between 1960 and 2000. [3]
- (iv) Suggest reasons why the Kaiparowits Plateau area is attractive to tourists. [4]
- (b) Study Fig. 11 which describes a proposal to mine coal in part of the Kaiparowits Plateau.

Andalex, a Dutch coal-mining company, wants to develop part of the Kaiparowits Plateau. Here it is estimated there may be up to 7 billion tonnes of low-sulphur coal lying close to the surface. The details of the proposal are:

- to mine 3 million tonnes per year in opencast mines.
- to transport the coal 320 km in 42-wheel trucks to the railway at Iron Springs.
- to transport the coal by train from the nearest railway at Iron Springs to the port of Los Angeles for export to Japan, Korea and Taiwan.
- to build a new 35 km highway and electricity lines across the Kaiparowits Plateau.

Fig. 11

- (i) What arguments are likely to be used by Andalex that the proposal should be allowed to go ahead? [3]
- (ii) Explain why many people will think that the development should **not** go ahead. [5]
- (c) Areas at risk from economic development need careful management.

Choose **one** of the following economic activities.

tourism
agriculture
manufacturing industry

Name an area which you have studied where the environment is at risk from the activity which you have chosen. Describe the attempts which have been made to maintain, conserve or improve the quality of the environment of your chosen area. [7]

Copyright Acknowledgements:

- Question 1 Graphs © Philip Allen Publishers, '*Geography Review*', Jan 2003.
Question 2 © The Geographical Association, 2000.
Question 2 Fig. 3a © The Geographical Association, 2000, '*Geography Magazine Millennium Special*'.
Question 3 © Philip Allen (2003), '*Geography Review*'.
Question 3 Fig. 5 '*Natural Systems and Human Responses*', R Prosser. Published by Thomas Nelson & Sons © Nelson Thornes Ltd.
Question 5 Fig. 9 Heinemann Educational (2002). '*Geography Matters Book 3: Teachers Resource Pack*'.
Question 6 © Philip Allen (1997), '*Geographical Review*'.

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