



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

BANGLADESH STUDIES

0449/02

Paper 2 Environment and Development of Bangladesh

May/June 2010

1 hour 30 minutes

Additional Materials: Answer Booklet/Paper



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.
- 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.
- Sketch maps and diagrams may be drawn to illustrate an answer.
- You are advised to spend about 30 minutes on each question.
- The Insert contains Photograph A for Question 1 and Fig. 3 for Question 2.

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.

This document consists of **9** printed pages, **3** blank pages and **1** Insert.



- 1 (a) Study Photograph A on the Insert, which shows a satellite image of part of Bangladesh.
- (i) Name the river marked as A. [3]
 - (ii) Name the landform marked as B. [3]
 - (iii) Describe the landscape of the area which is marked by the broken line (- - - -) and labelled C. [3]
 - (iv) Explain how the feature C was formed. [4]
 - (v) The sea appears in three different colours along the line X – Y. Suggest an explanation for this. [2]
 - (vi) Why is the area marked D very good for fish? [3]

- (b) Study Fig.1, which shows the number of boats used for fishing in Bangladesh.

Type of boat	1975	1995
Mechanised boats	200	10 000
Non-mechanised boats	46 000	14 000

Fig. 1

- (i) Describe the changes in the number and types of boats used for fishing. [2]
 - (ii) Describe **two** methods of fishing in Bangladesh. [2]
- (c) What is meant by the term 'aquaculture'? [1]
- (d) Study the following statement:

'Developing aquaculture inland is the best way to increase fish production in a sustainable way.'

- (i) Give **one** piece of evidence which supports this statement. [1]
- (ii) Give **one** piece of evidence which does **not** support the statement. [1]
- (iii) Do you agree with the statement? Give reasons for your answer. [4]

[Total: 25]

- 2 (a) Study Fig. 2, which shows a rainfall graph for Khulna.

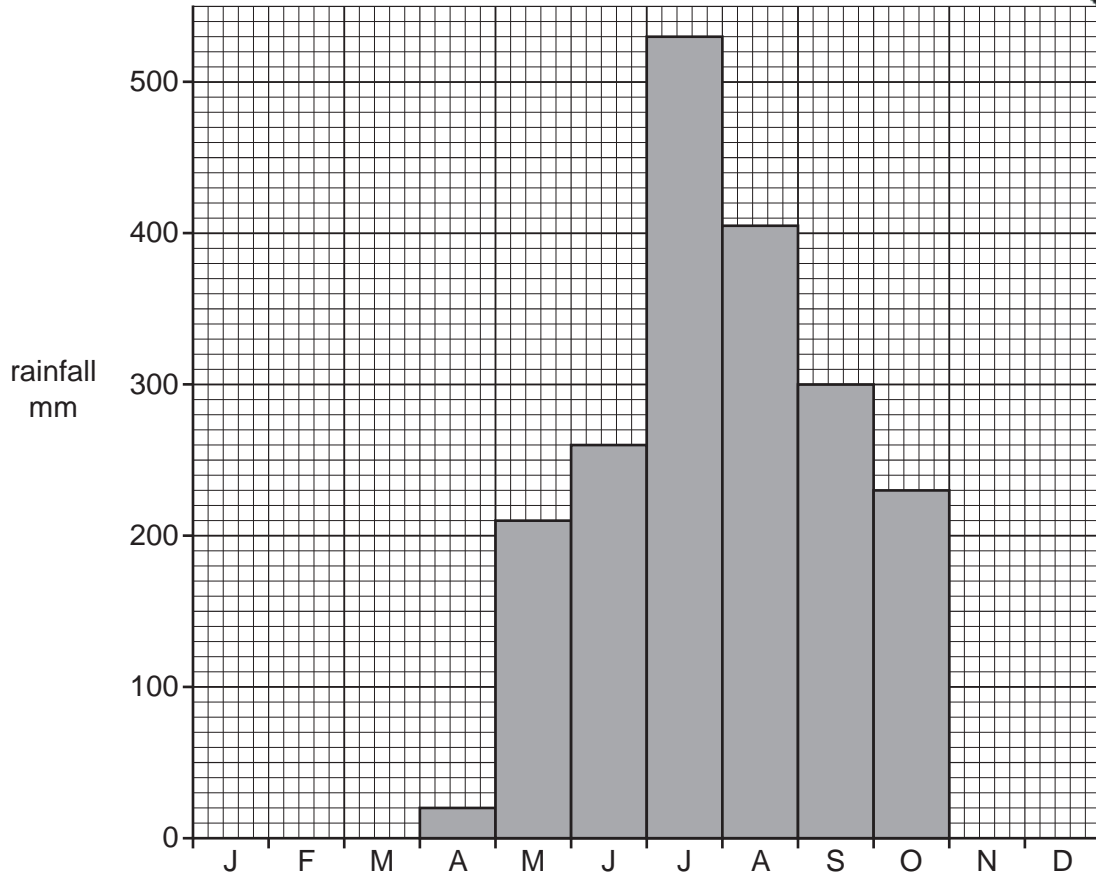


Fig. 2

- (i) What is the rainfall in the wettest month for Khulna? [1]
- (ii) Describe the annual pattern of rainfall at Khulna. [3]
- (iii) Explain how this pattern of rainfall affects the subsistence farmers in the area. [3]
- (b) (i) Name and describe **two** methods of irrigation. [6]
- (ii) Choose **one** factor that affects subsistence farming other than availability of water. Explain how this factor affects agricultural production. [3]
- (c) Study Fig. 3 on the Insert, which is about floating gardens. Explain how a floating garden can be constructed. [3]
- (d) Study the following statement:
- 'Floating gardens could bring many benefits both to subsistence farmers and to the Bangladesh economy.'*
- (i) Give **one** piece of evidence which supports the statement. [1]
- (ii) Give **one** piece of evidence which does **not** support the statement. [1]
- (iii) Do you agree with the statement? Give reasons for your answer. [4]

[Total: 25]

3 (a) Study Fig. 4, which shows the percentage of land covered by forest in some countries.

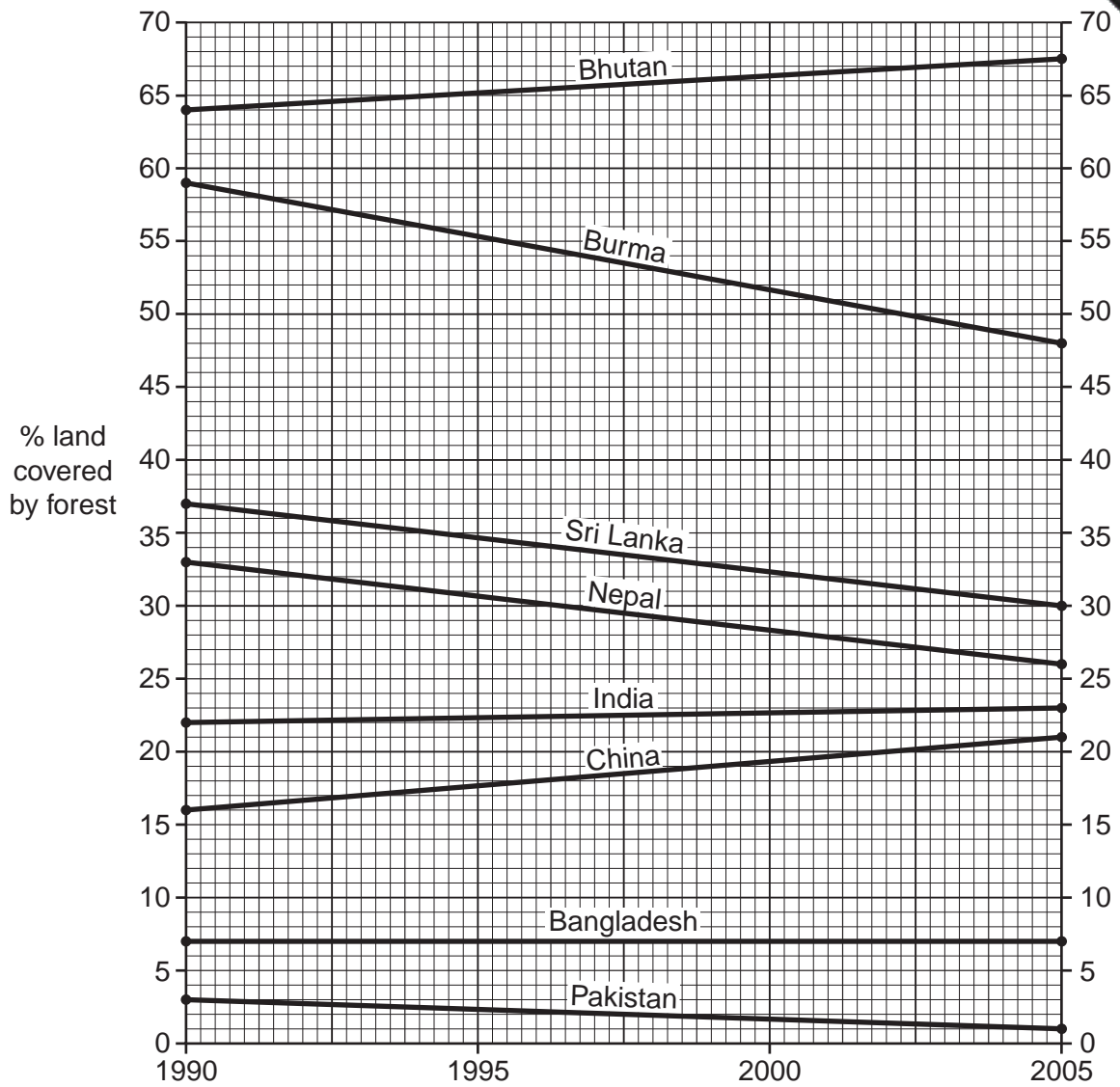


Fig. 4

- (i) Which country was least forested in 2005? [1]
- (ii) Which country had the biggest decrease between 1990 and 2005? [1]
- (iii) Which countries increased their percentage of forested land between 1990 and 2005? [2]

- (b) Study Fig. 5, which shows changes to the area covered by forest in Bangladesh in 1990 and 2005.

	1990	2000	2005
Area of forest (000s hectares)	882	884	871

Fig. 5

- (i) How many hectares of forest were lost between 2000 and 2005? [1]
- (ii) Explain why Bangladesh is losing its forests. [4]
- (iii) Describe the problems that can be caused by deforestation. [5]

- (c) Study Photograph B.



Photograph B

- (i) Name and describe the type of forest shown in the photograph. [2]
- (ii) Where in Bangladesh can this type of forest be found? [1]
- (iii) State **two** possible threats to this type of forest. [2]

- (d) Study the two statements below:

A. *'It is essential that Bangladesh manages its forests to prevent further reduction in the area covered.'*

B. *'Bangladesh must use all of its land, including the forests.'*

- (i) Give **one** piece of evidence which supports statement A. [1]
- (ii) Give **one** piece of evidence which supports statement B. [1]
- (iii) Which statement do you agree with the most? Give reasons for your answer. [4]

[Total: 25]

4 (a) Study Fig. 6, which shows gas fields and gas pipelines.

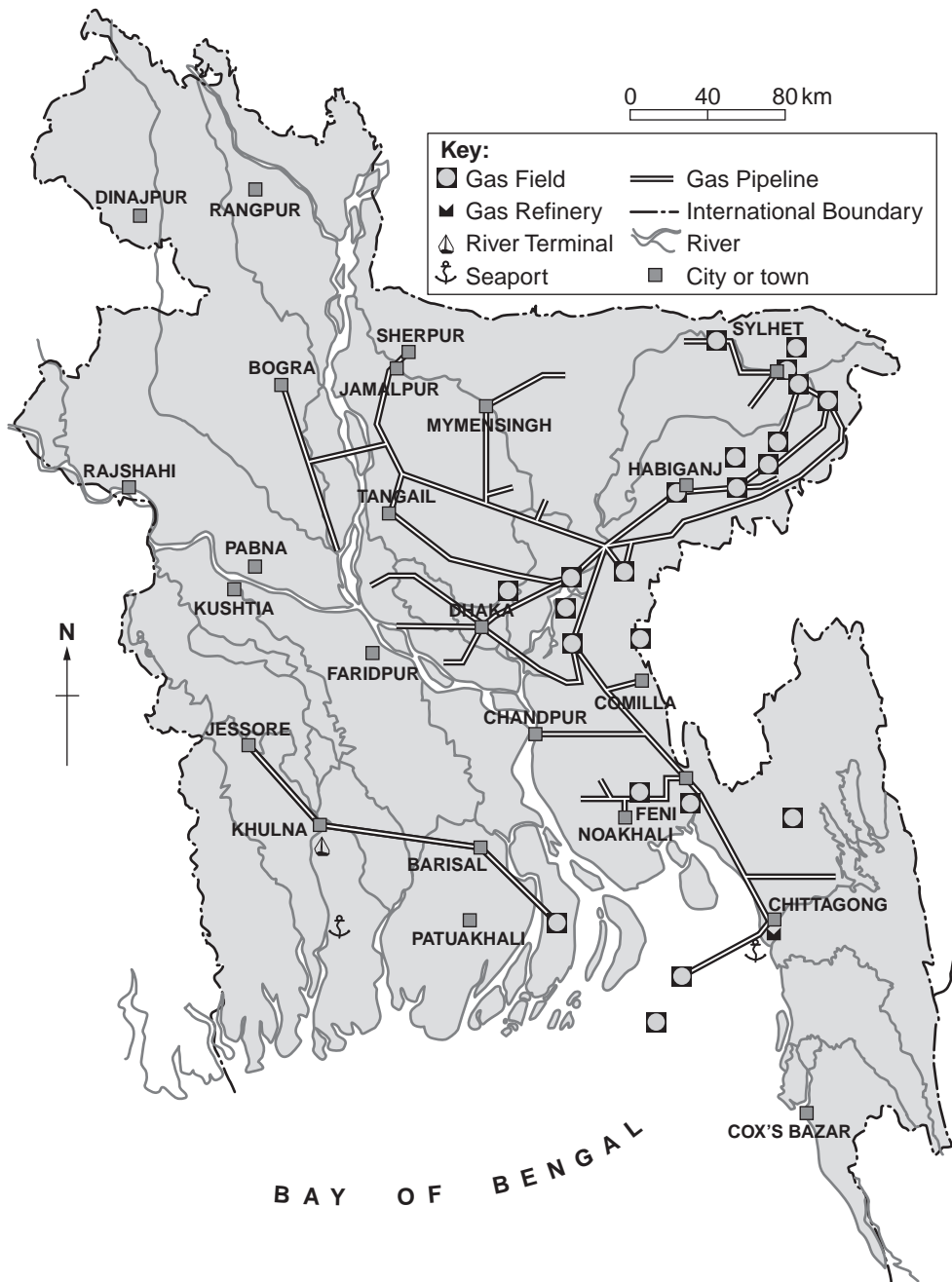


Fig. 6

- (i) Describe the distribution of the **gas fields**. [3]
- (ii) Suggest reasons for the distribution of the natural **gas pipelines**. [3]
- (iii) Describe **three** uses of natural gas in Bangladesh. [3]

(b) Study Fig. 7, which shows production of natural gas in Bangladesh.

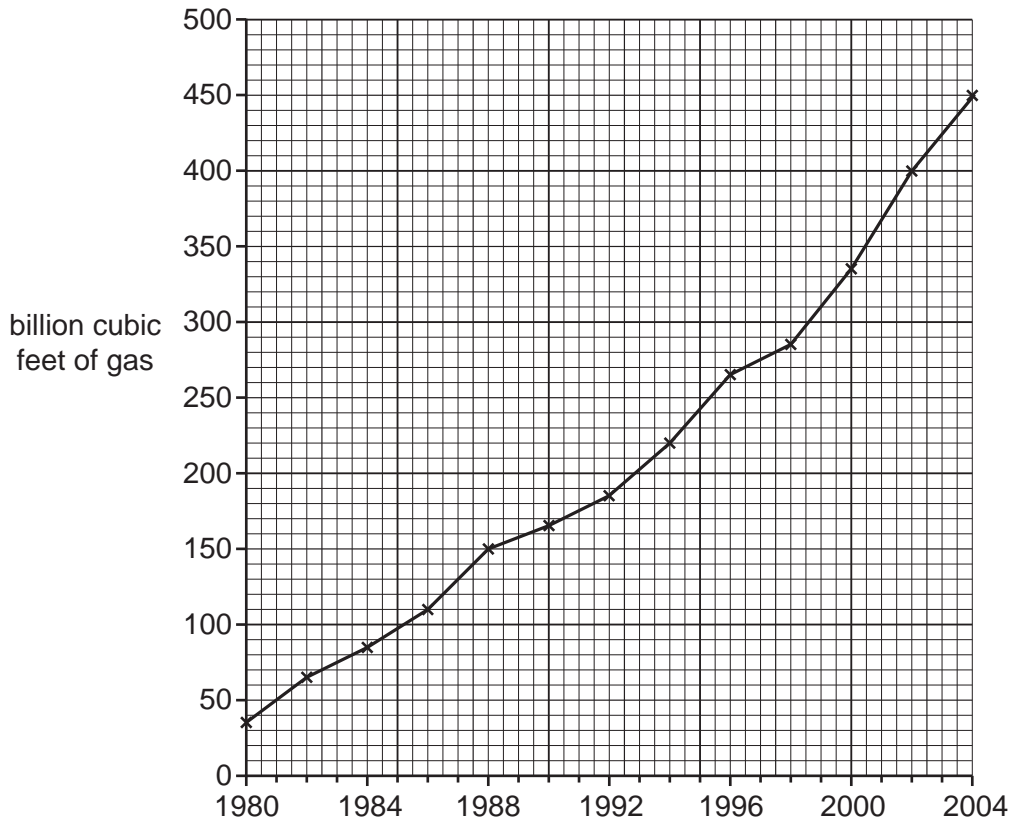


Fig. 7

- (i) Describe how the production of natural gas changed from 1980 to 2004. [2]
- (ii) Suggest **two** reasons for the changes in production. [2]
- (iii) It is estimated that Bangladesh has reserves of 25 trillion cubic feet of natural gas. Describe **two** problems which could develop if production keeps on rising. [2]
- (c) There are 3 state owned Petrobangla companies and 2 multinational companies involved in the production of natural gas. Describe the advantages for Bangladesh of **each** type of company. [4]
- (d) Study the two statements below:
- A. 'Bangladesh should increase its production of natural gas so some can be exported.'
- B. 'Bangladesh should strictly limit the amount of gas produced each year.'
- (i) Give **one** piece of evidence which supports statement A. [1]
- (ii) Give **one** piece of evidence which supports statement B. [1]
- (iii) Which statement do you agree with the most? Give reasons for your answer. [4]

[Total: 25]

- 5 (a) Study Fig. 8, which shows changes in the infant mortality rate (IMR) between 1990 and 2008. It also shows predicted changes up to 2015.

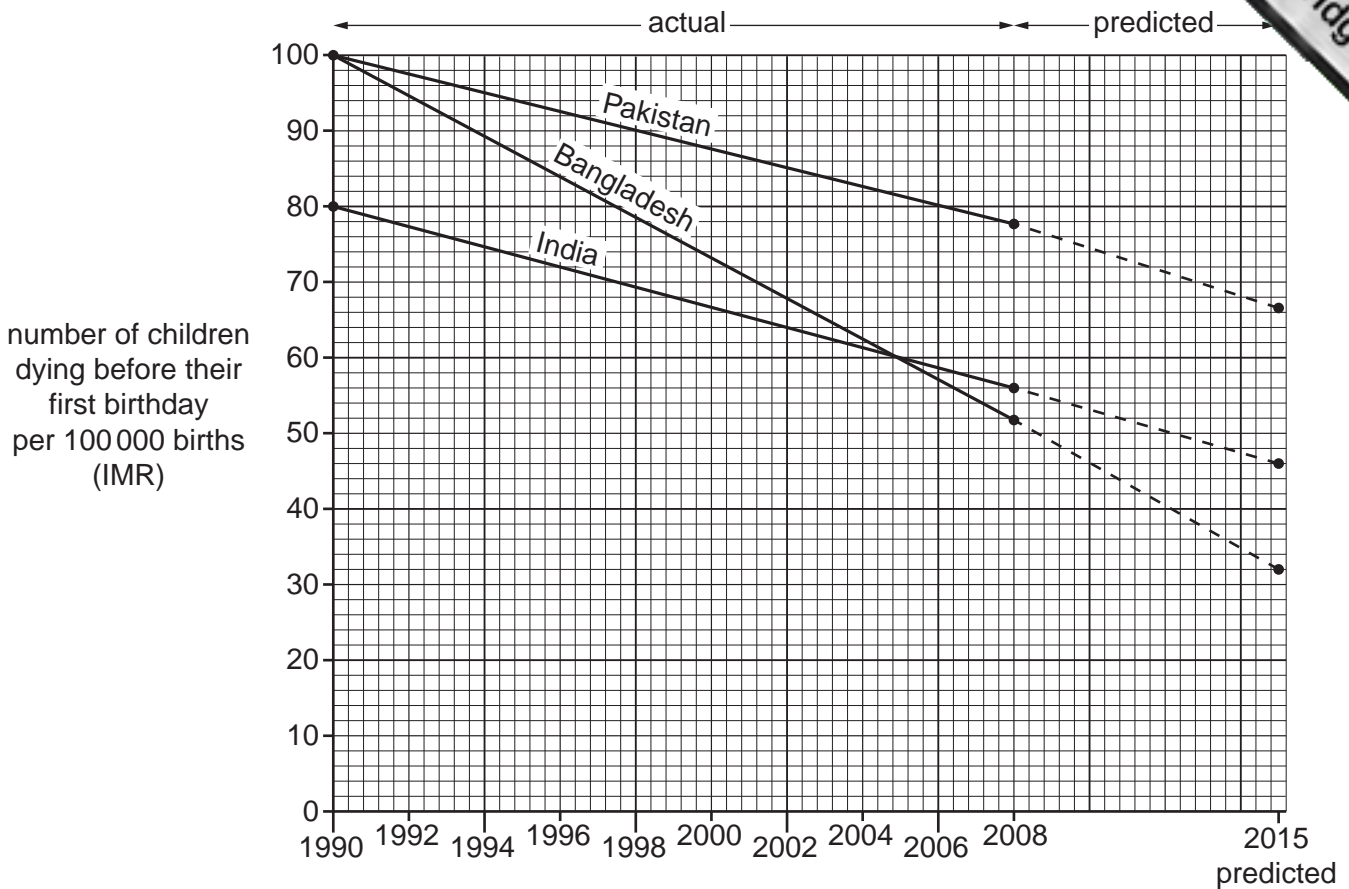


Fig. 8

- (i) How did Bangladesh's infant mortality rate change between 1990 and 2008? [1]
- (ii) Compare the changes in Bangladesh with those in Pakistan and India between 1990 and 2015. [4]
- (iii) Suggest **two** reasons for the predicted changes to Bangladesh's infant mortality rate between 2008 and 2015. [2]
- (iv) Infant mortality rate is an example of a 'human development indicator'. Name **two** other examples of human development indicators. [2]
- (b) (i) Describe how Bangladesh's **public health** system has helped to improve the infant mortality rate up to 2008. [4]
- (ii) Describe the role of **Non-Governmental Organisations** (NGOs) in providing health care in Bangladesh. [4]

- (c) Study Fig. 9, which shows percentages of people in Bangladesh with access to water and improved sanitation facilities.

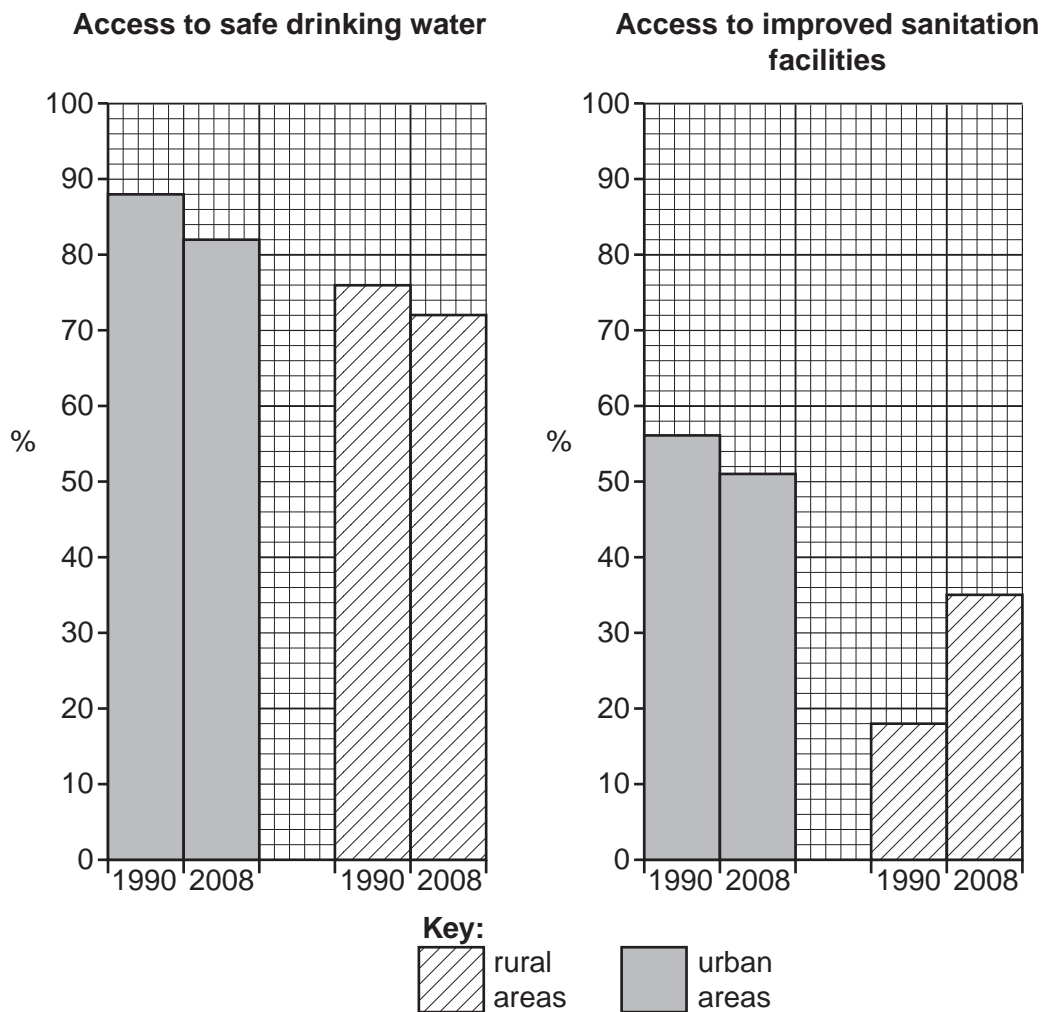


Fig. 9

For both drinking water and sanitation, how did access change in:

- (i) **urban** areas?
(ii) **rural** areas?

[3]

- (d) Study the two statements below:

- A.** *'The best way to improve the health of people in Bangladesh is to improve clean water supplies and sanitation facilities.'*
- B.** *'The best way to improve the health of people in Bangladesh is to increase the number of good health care centres.'*

- (i) Give **one** piece of evidence which supports statement A. [1]
- (ii) Give **one** piece of evidence which supports statement B. [1]
- (iii) What do you think is the best way to improve people's health? Give reasons for your answer. [3]

Copyright Acknowledgements

Question 2 © Practical Action leaflet; The Schumacher Centre for Technology.

Question 3 © Jessica Aldred; *Report reveals 'alarming' rate of mangrove habitat loss*; www.guardian.co.uk/environment/2008/feb/01/endangered-habitats.conservation... accessed 16/06/2009; Guardian News & Media Ltd 2008.

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