



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. [1]
  - (ii) Name the landform marked as B. [1]
  - (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.

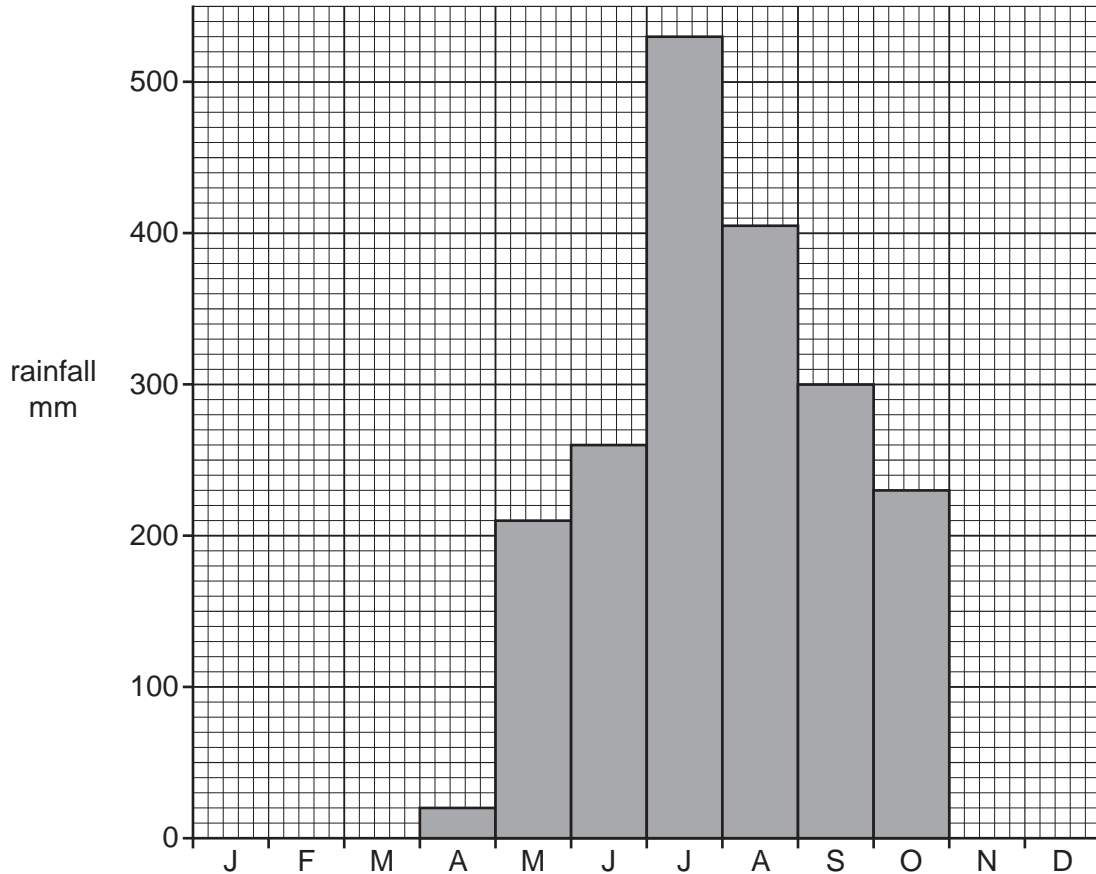


Fig. 2

- (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 south Asian countries.

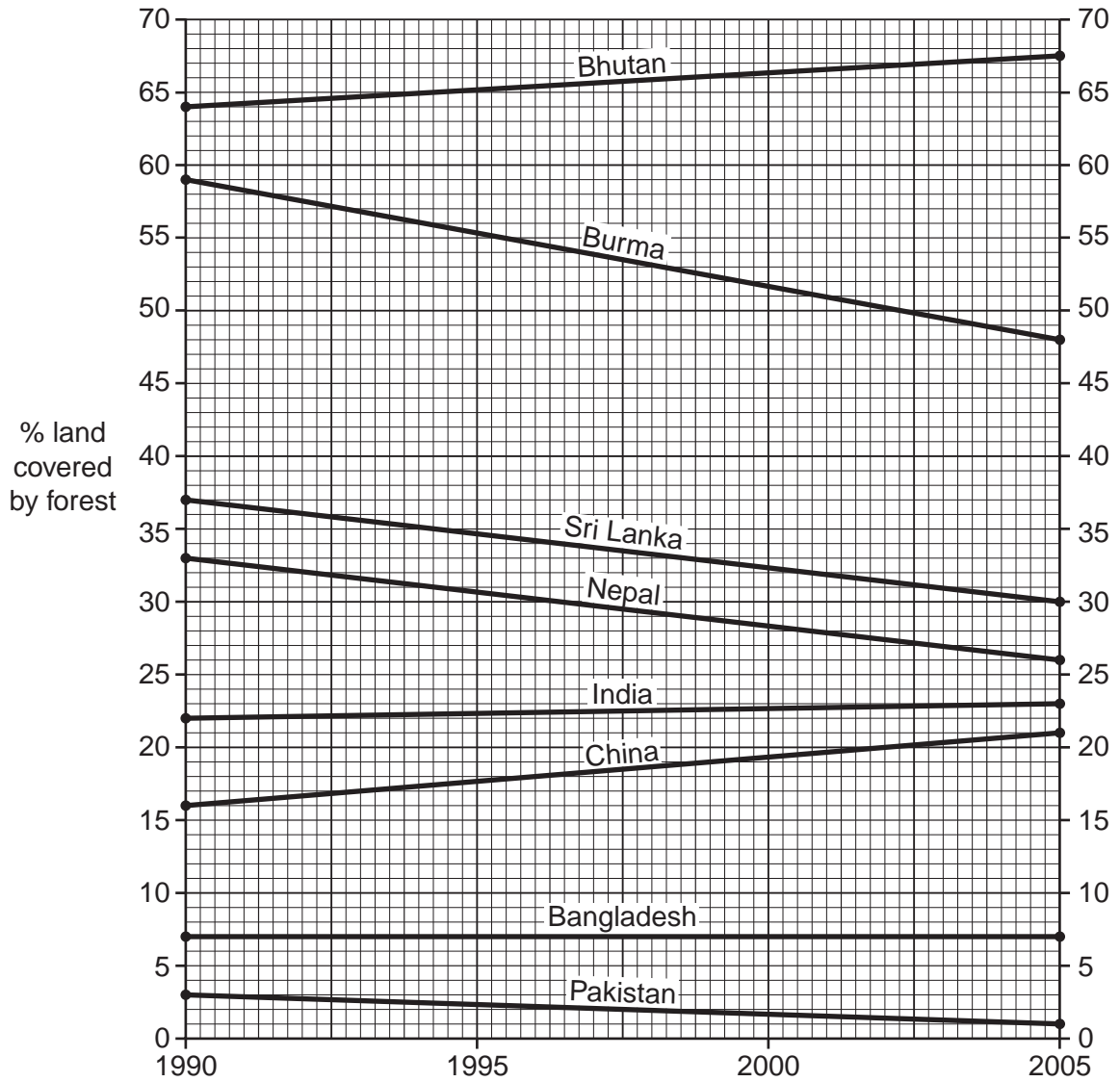


Fig. 4

- (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 between 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.

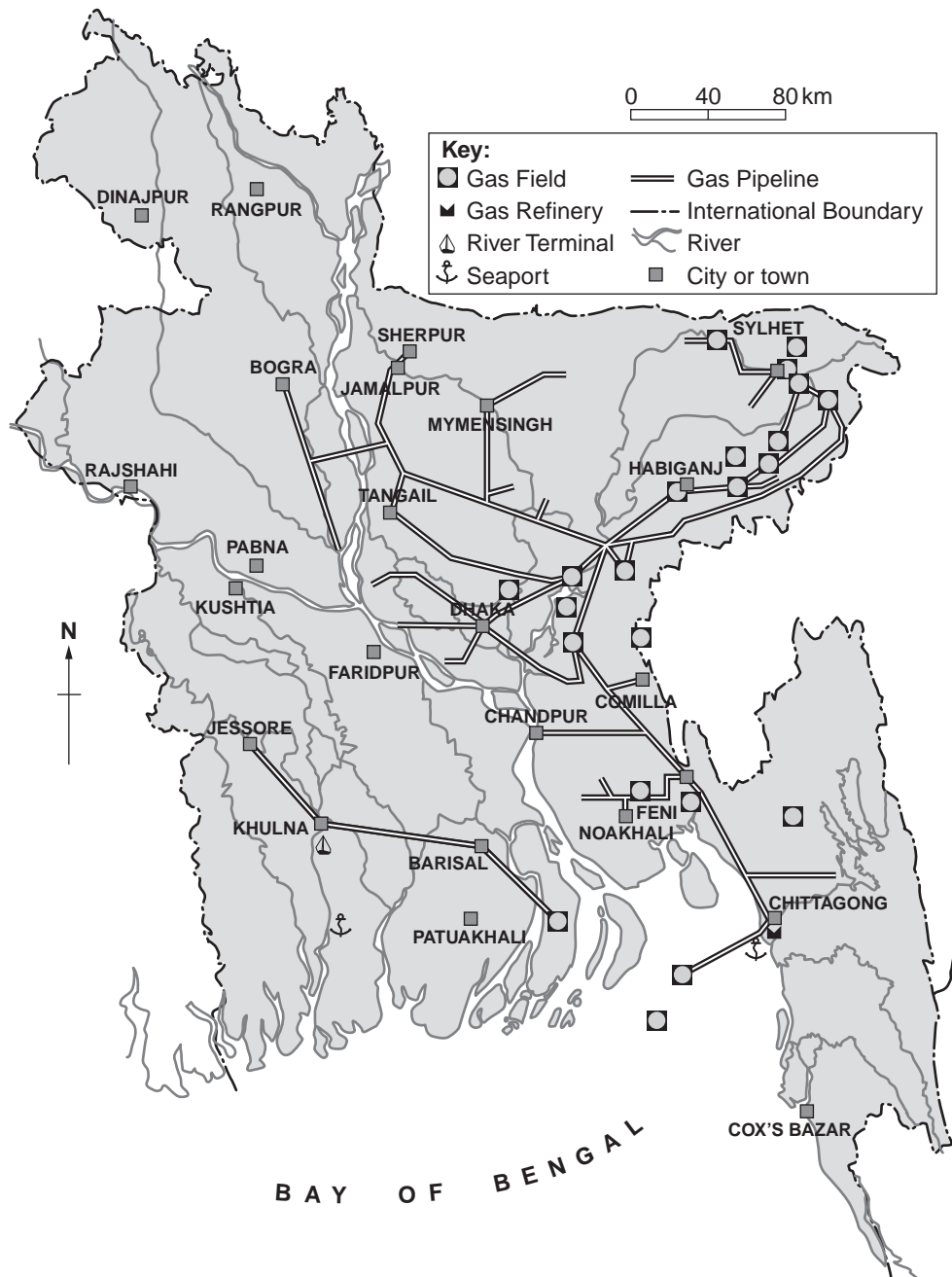


Fig. 6

- (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.

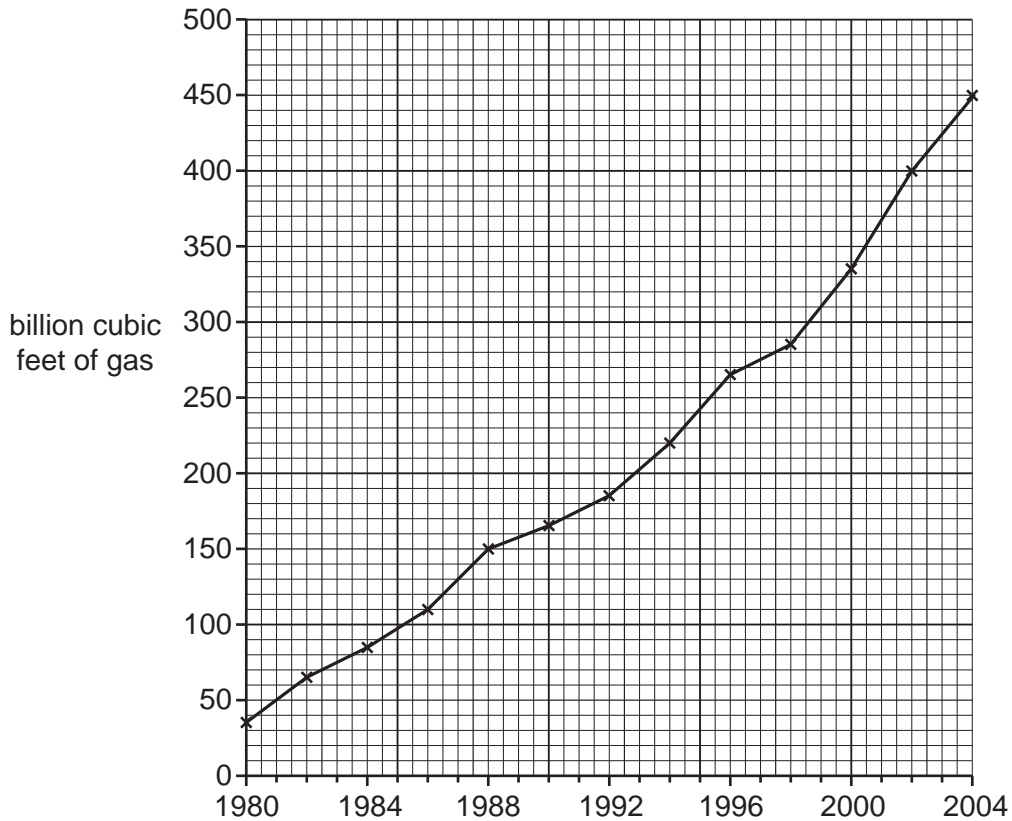


Fig. 7

- (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.

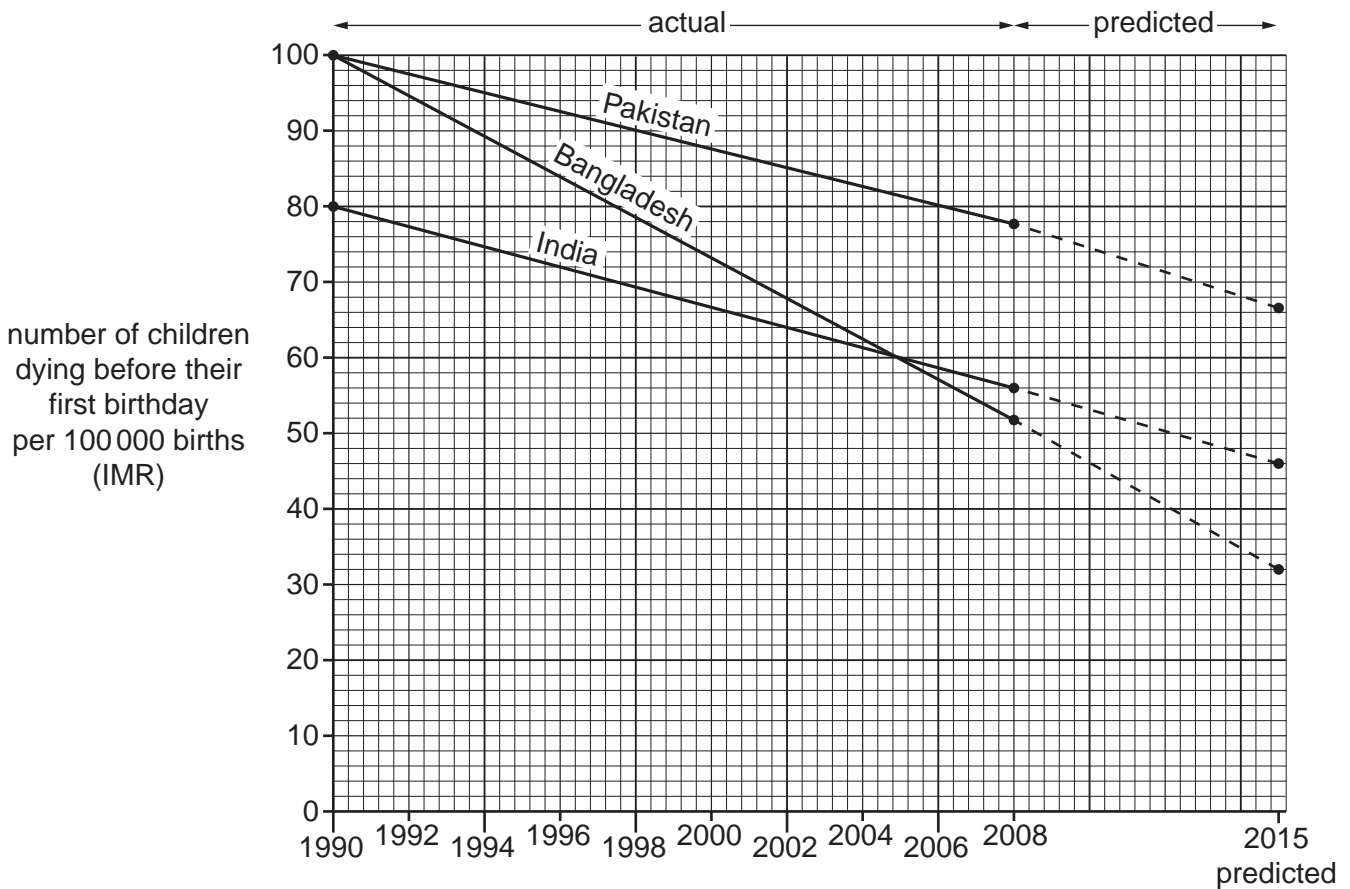
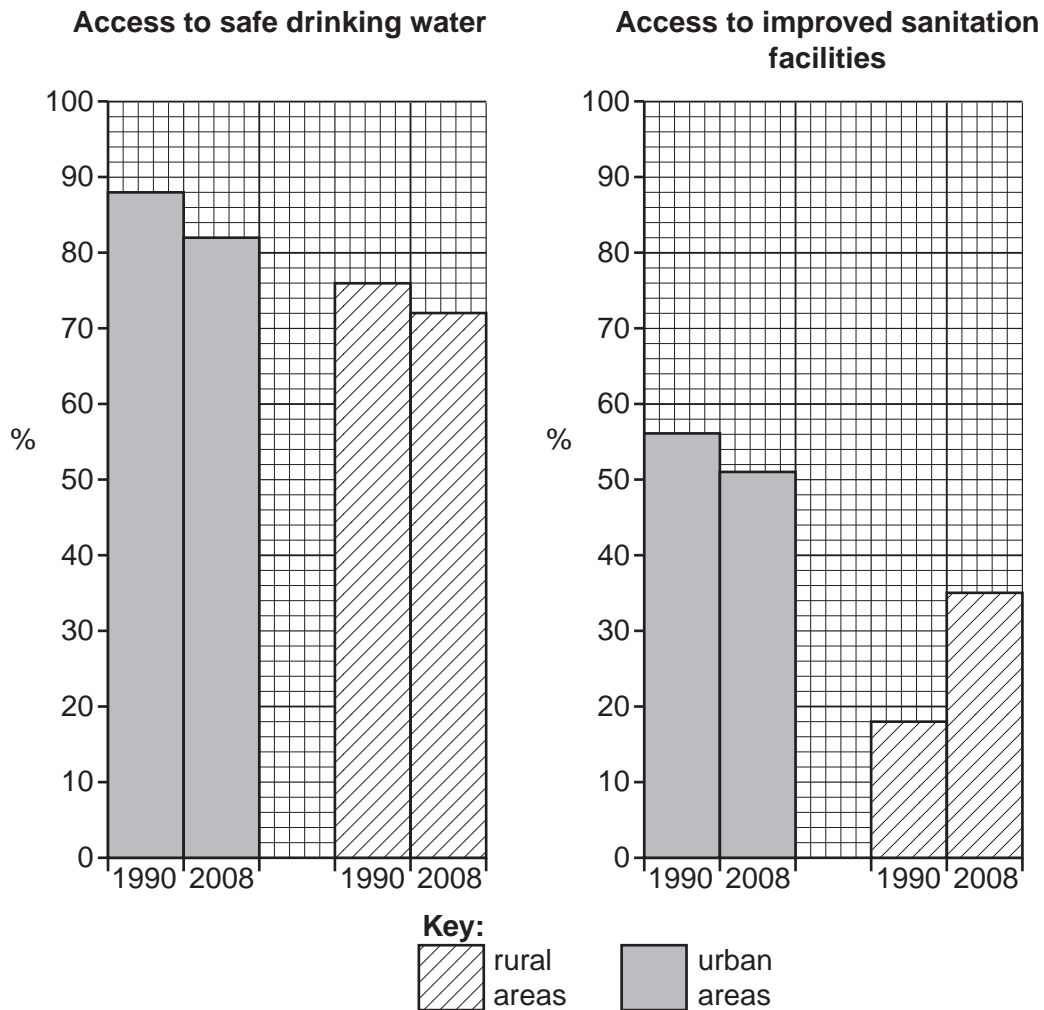


Fig. 8

- (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 safe drinking 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]

**[Total: 25]**





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*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...](http://www.guardian.co.uk/environment/2008/feb/01/endangered-habitats-conservation...) accessed 16/06/2009; Guardian News & Media Ltd 2008.

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