

Write your name here

Surname

Other names

Centre Number

Candidate Number

Pearson Edexcel
Level 1/Level 2 GCSE (9–1)

Geography B

Paper 3: People and Environment Issues – Making Geographical Decisions

Monday 11 June 2018 – Afternoon

Time: 1 hour 30 minutes

Paper Reference

1GB0/03

You must have:

Resource Booklet (enclosed)
Calculator

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- Where asked you must **show all your working out** with **your answer clearly identified** at the **end of your solution**.

Information

- The total mark for this paper is 64.
- The marks for **each** question are shown in brackets – *use this as a guide as to how much time to spend on each question.*
- The marks available for spelling, punctuation, grammar and use of specialist terminology are clearly indicated.

Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- Check your answers if you have time at the end.

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SECTION A

People and the Biosphere

Answer ALL questions. Write your answers in the spaces provided.

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

1 Use Section A (pages 2, 3 and 4) in the Resource Booklet to answer this question.

(a) Define the term **biodiversity**.

(1)

(b) Study Figure 1.

(i) Identify Country X.

(1)

(ii) Identify the period when Indonesia's population increased by 50 million exactly.

(1)

- A 1950–1970
- B 1970–1990
- C 1990–2010
- D 2010–2030

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(c) Study Figure 2.

(i) Identify in which of the years shown, the majority of Indonesia's population were earning at least US\$10 per day. (1)

(ii) Explain **one** way in which rising affluence could increase the demand for water in Indonesia. (2)

(d) Boserup believed a growing population would never run out of resources. Explain **one** reason why a growing population might never run out of resources. (2)

(Total for Question 1 = 8 marks)

TOTAL FOR SECTION A = 8 MARKS



SECTION B

Forests Under Threat

Answer ALL questions. Write your answers in the spaces provided.

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

2 Use Section B (pages 5 and 6) in the Resource Booklet to answer this question.

(a) Study Figure 3.

Identify **three** changes in the pattern shown.

(3)

1

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3

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(b) Study Figure 4.

(i) Identify how much more money Indonesia's government could be given if it protected the rainforest more successfully.

(1)

A 1000 million US\$

B 930 million US\$

C 800 million US\$

D 70 million US\$

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(ii) Explain **two** global actions which help protect the rainforest.

(4)

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(Total for Question 2 = 8 marks)

TOTAL FOR SECTION B = 8 MARKS

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SECTION C

Consuming Energy Resources

Answer ALL questions. Write your answers in the spaces provided.

3 Use Section C (pages 7, 8, 9, 10, 11 and 12) in the Resource Booklet to answer this question.

(a) Study Figure 5.

(i) Calculate the value in dollars of agriculture (including oil palm).

Answer to one decimal place. Show your working.

(2)

..... billion US\$

(ii) Explain **one** piece of evidence from Figure 5 which shows that Indonesia is an emerging country.

(2)

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(b) Study Figure 6, Figure 7a and Figure 7b.

Explain **two** reasons why rising global demand for the products shown in Figure 7a has led to widespread rainforest loss in Indonesia.

(4)

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(c) Study Figure 8a and Figure 8b.

Suggest **one** reason why fossil fuel oil and palm oil prices often rise together.

(2)

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(d) Study Figure 8a.

Explain **two** reasons for **lower** fossil fuel oil prices in some years.

(4)

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(e) Study Figure 9.

Assess the environmental impacts of exploiting Indonesia's energy resources.

(8)

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(f) (i) Explain **one** reason why the rising affluence of a country can lead to a reduction in its carbon footprint.

(2)

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(ii) Study Figure 10.

Assess the reasons why people disagree over who is to blame for deforestation.

(8)

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(Total for Question 3 = 32 marks)

TOTAL FOR SECTION C = 32 MARKS



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SECTION D

Making a Geographical Decision

Answer ALL questions. Write your answers in the spaces provided.

In this question, up to four additional marks will be awarded for your spelling, punctuation, grammar and use of specialist terminology.

- 4** Study the **three** options below that the Indonesian Government can choose from in order to manage the palm oil industry.

Option 1: Prevent any further deforestation but allow oil palms to be grown on land where forest has already been removed.

Option 2: Stop palm oil production completely and assist the regrowth of the rainforest and the restoration of its wildlife.

Option 3: Encourage further production of palm oil in order to increase Indonesia's exports and help economic development.

Select which option the Indonesian Government should choose that would be best for its people and its environment.

Justify your choice.

Use information from the Resource Booklet and knowledge and understanding from the rest of your geography course to support your answer.

(12)

Chosen option

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(Spelling, punctuation, grammar and use of specialist terminology = 4 marks)
(Total for Question 4 = 16 marks)

TOTAL FOR SECTION D = 16 MARKS
TOTAL FOR PAPER = 64 MARKS



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Geography B

**Paper 3: People and Environment Issues
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Do not return this Resource Booklet with the question paper.

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SECTION A

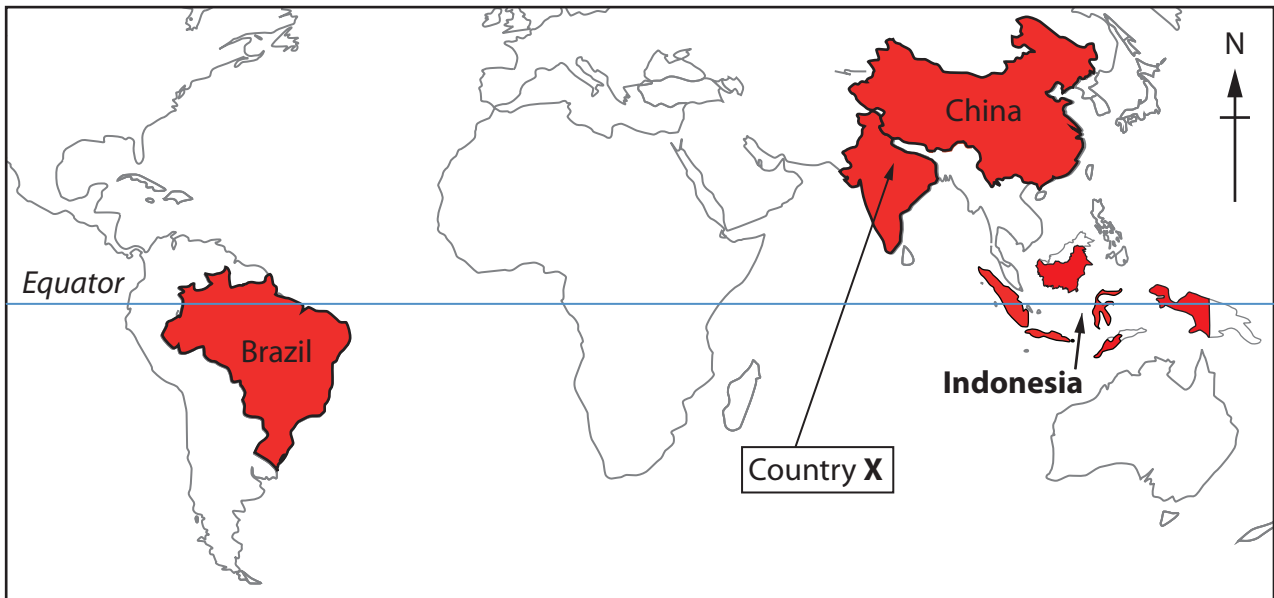
People and the biosphere

The issue: Conflicts over energy and the environment in Indonesia.

- Indonesia is the world's fourth most populated country and an emerging country, although levels of development vary greatly across its 1700 islands.
- Population growth, industrialisation and rising affluence (wealth) mean Indonesia's own energy needs are growing.
- This tropical country is the world's largest producer of palm oil, which is a biofuel. It is also a major exporter of coal and has offshore fossil fuel oil reserves.
- Mining coal and the planting of oil palms lead to the loss of tropical rainforest and reduces their rich and unique biodiversity.

Introduction

- Tropical rainforests grow in regions with high, all-year rainfall and high temperatures, including much of Indonesia. Oil palms need these conditions too.
- As a result, widespread deforestation has taken place in Indonesia to make room for oil palm trees. This is commonly done by burning down the rainforest.
- The Indonesian government encourages the palm oil industry and the mining companies to help economic development. The government has passed a number of environmental protection laws, however these are not always enforced.
- Indonesia has many remote islands making it hard to monitor palm oil companies.
- Some poor rural communities in Sumatra, Kalimantan and other forested Indonesian islands have always used wood from the rainforest as their main fuel source. Until they have an alternative energy source, deforestation will continue even if the palm oil companies can be controlled.



Year:	1950	1970	1990	2010	2030 (projected)
Population (millions)					
China	540	814	1165	1359	1453
Country X	376	555	868	1205	1476
Indonesia	70	120	180	240	293
Brazil	52	110	152	198	229

Figure 1

Population data and locations for Indonesia and other large emerging countries, 1950-2030

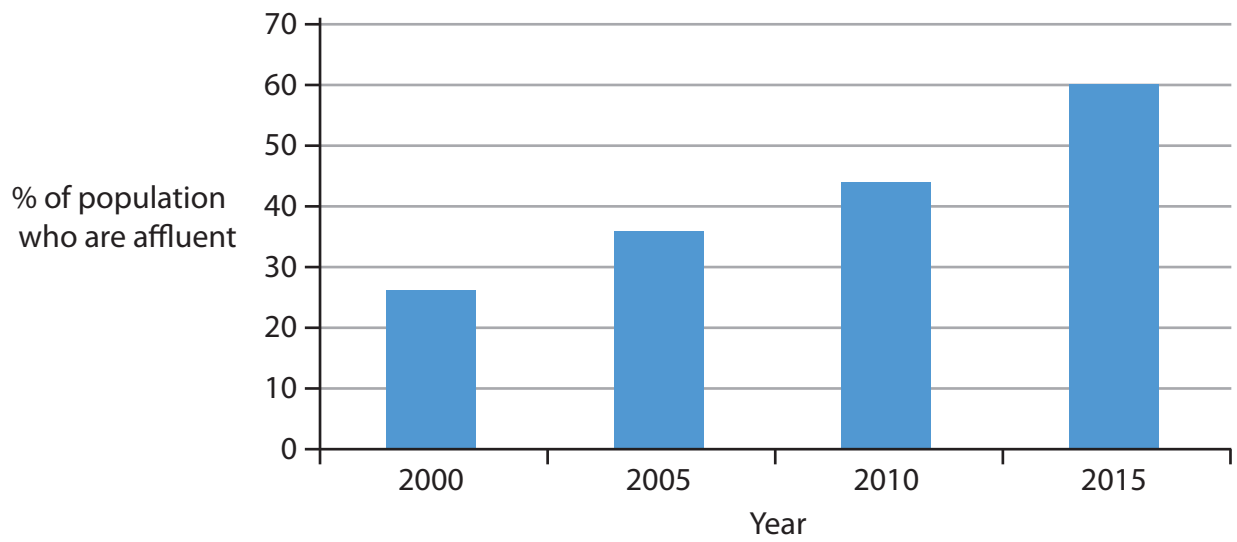


Figure 2

An estimate of rising affluence (personal income of at least US\$10 per day) in Indonesia, 2000-2015

SECTION B

Forests under threat

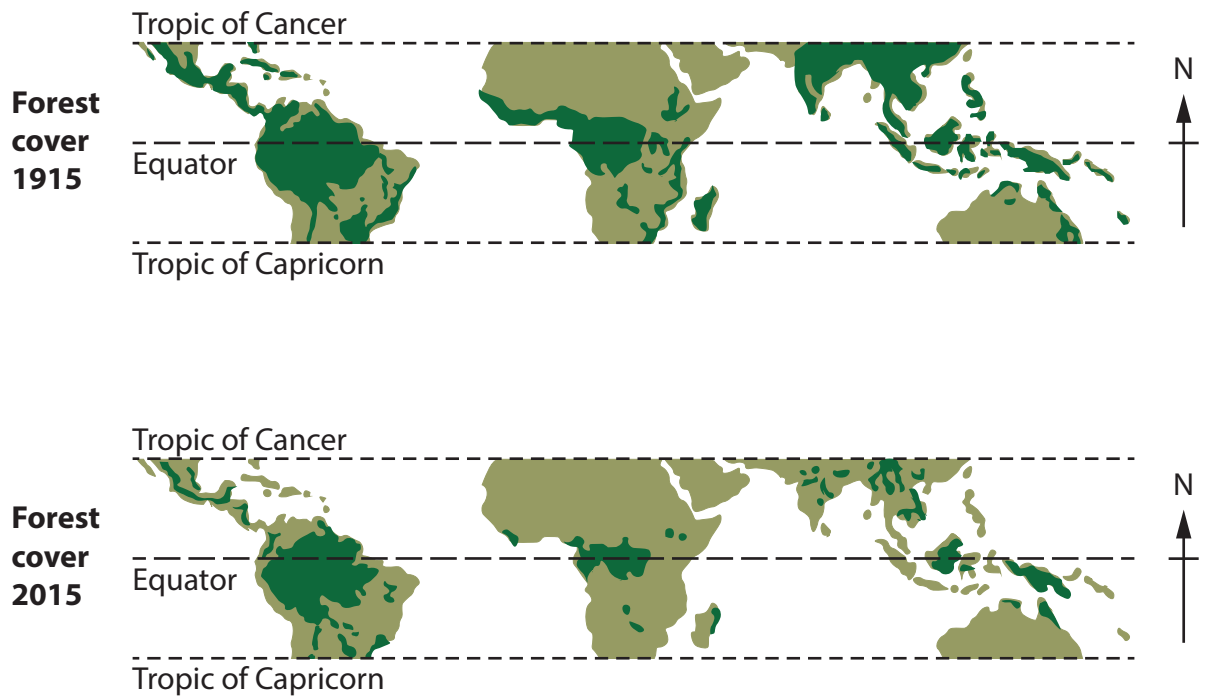


Figure 3

The distribution of forest between the Tropics in 1915 and 2015

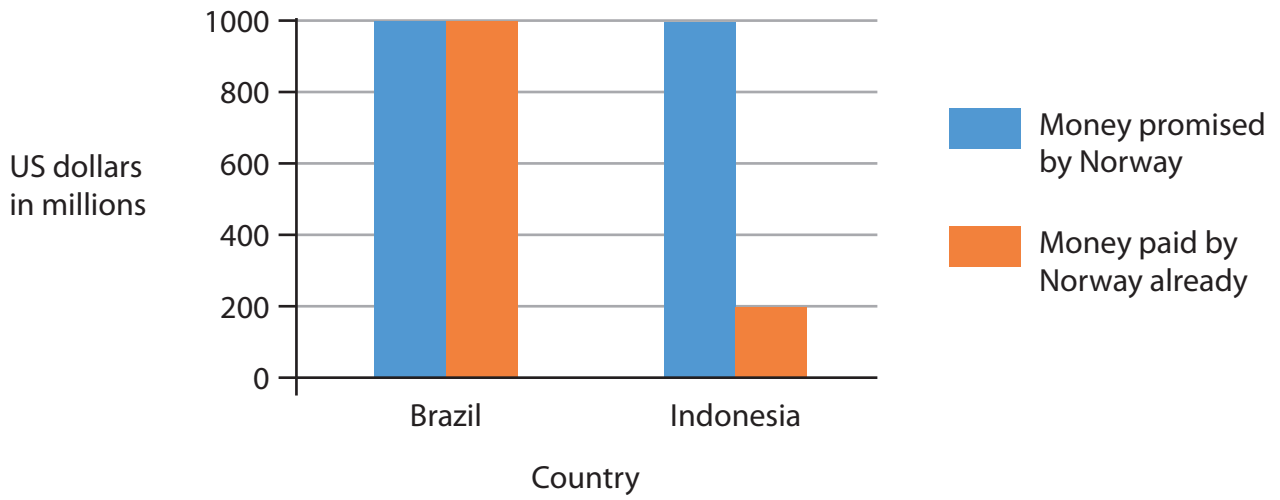
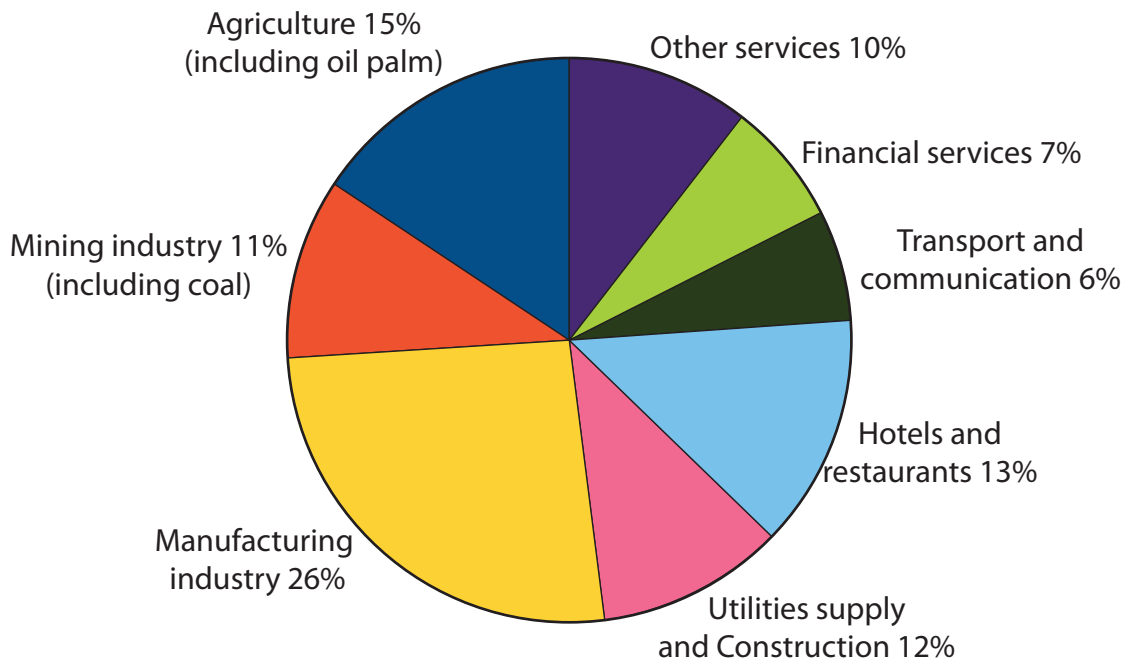


Figure 4
Money promised and paid for rainforest conservation
by Norway's Government to Indonesia and Brazil (million US\$)

SECTION C

Consuming energy resources



Indonesia's total GDP: 868 billion US\$

Figure 5
The structure of Indonesia's GDP, 2014

An area of Indonesia's original rainforest cover.



Both local communities and companies burn rainforest to clear the land.



The land cleared by companies is now used to grow oil palm trees.



Figure 6

Rainforest in Indonesia is being cleared to make more room for oil palm plantations.

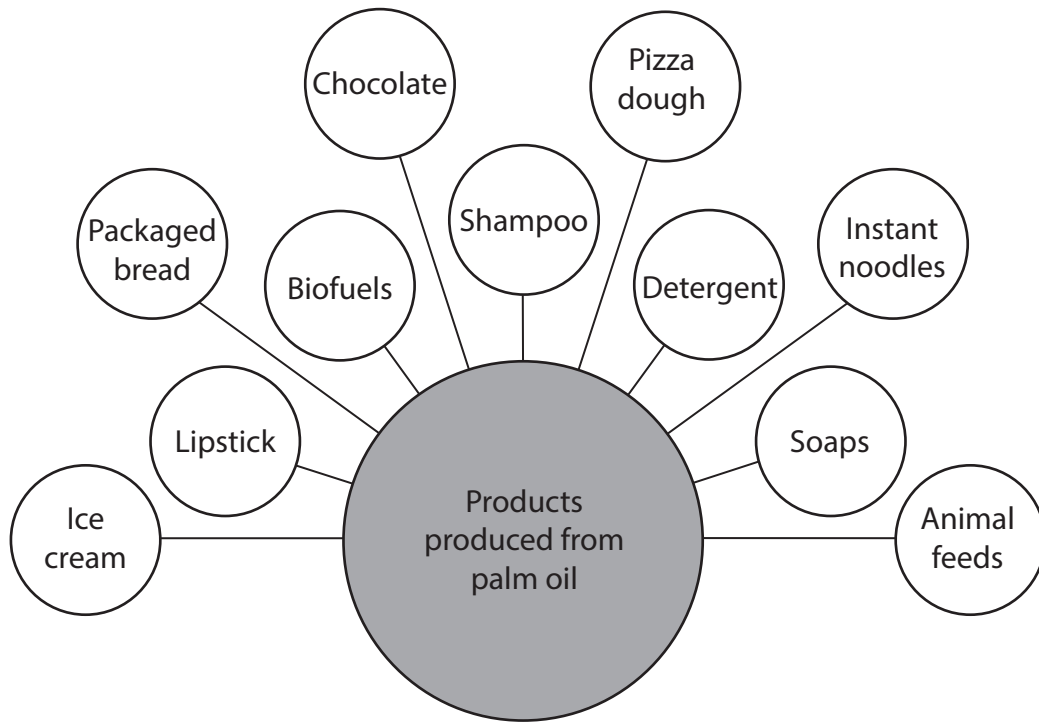


Figure 7a

Global demand is rising for products made using palm oil fruit



Figure 7b

Oil palm fruit

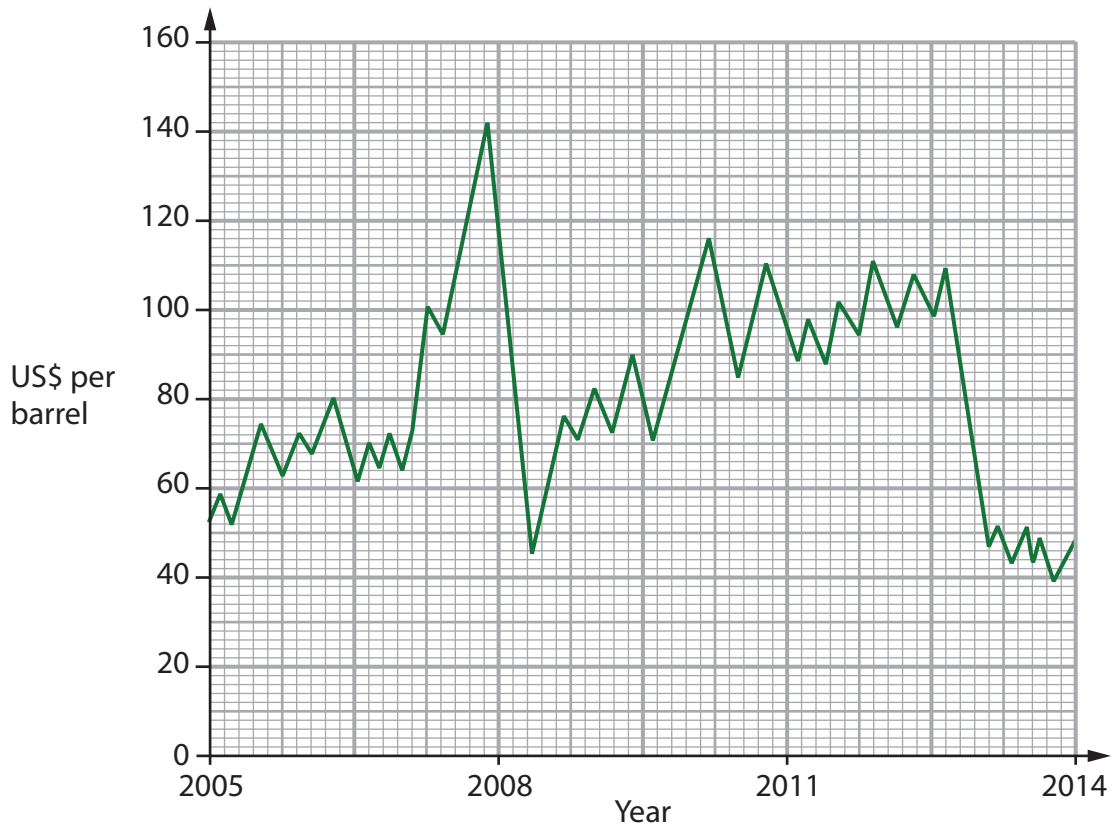


Figure 8a

Fossil fuel oil prices, 2005–2014

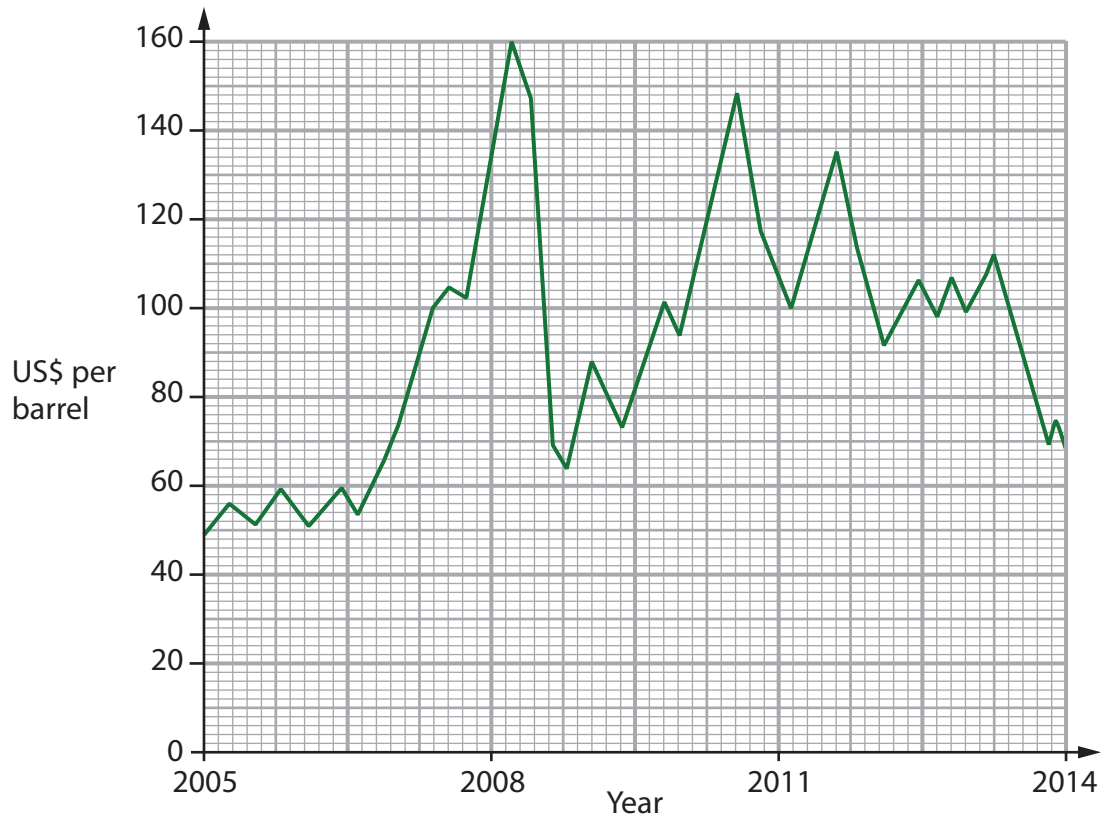


Figure 8b

Palm oil prices, 2005–2014

- 100 years ago, there were 230 000 orangutans.
- Due to habitat loss, the orangutan population in Kalimantan now numbers about 50 000 (Endangered) and only 7 500 Sumatran Orangutan remain (Critically Endangered).

- Half of Kalimantan's rivers suffer from toxic pollution from coal mines, which in turn affects many coastal environments.
- Mining has also led to landscape scarring in many areas.



- Forest fires in Sumatra and Kalimantan cause a toxic haze that spreads across Indonesia and other Southeast Asian countries.
- Smoke from forest fires causes large number of deaths including many children aged under 5.

- The Seribu Islands near Jakarta have suffered from repeated fossil fuel oil spills between 2004 and 2014.
- The source may have been leaking offshore oil rigs operated nearby by China National Offshore Oil Corp or BP Indonesia.

- Deforestation (due to human activities) and heavy rainfall leads to soil erosion throughout Indonesia.

Figure 9

Environmental impacts of energy resource development in Indonesia

The Indonesian government needs to enforce the laws to protect the trees. Brazil's government has done this.

Norway's government

The government keeps selling permits to expand palm oil production areas. Also, some oil palm companies abandon land too quickly when the soil fertility begins to fall. They clear more rainforest every time they want new soil for their oil palms.

A university expert

The killer smoke will carry on and damage to human health will continue. People everywhere eat snack foods and use soap. They don't ask enough questions about where the palm oil used in them comes from or how it is produced.

Pressure group

Our company has pledged to stop deforestation. We will grow more palm trees per unit area in our existing plantations. But when we say we want to save the rainforest, the Indonesian government just sells it to companies who don't care as much as we do.

A palm oil company manager

We want to develop eco-tourism here in Merabu, to attract adventurous tourists. The Norwegians paid us to save some local trees. But then a palm oil company came and cut them down. I think it's impossible to stop the worst companies.

The chief of Merabu, a village in Kalimantan

It is difficult to make some villages obey the rules. A lot of fires are started where local people want to make money from palm oil too. They claim that growing oil palms will speed up the development of their local community.

A government official

Figure 10

Different views about who is most to blame for deforestation in Indonesia

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