

3110U20-1

TUESDAY, 7 JUNE 2022 – AFTERNOON

GEOGRAPHY

Unit 2: Environmental and Developmental Issues

1 hour 30 minutes plus your additional time allowance

Surname

First name(s)

Centre Number

Candidate Number

0

ADDITIONAL MATERIALS

In addition to this paper you may use a calculator and a ruler if required.

INSTRUCTIONS TO CANDIDATES

Use black ink, black ball-point pen or your usual method.

Write your name, centre number and candidate number in the spaces on the previous page.

Answer BOTH questions in Section A.

Answer ONE question from Section B.

Write your answers in the spaces provided in this booklet.

Additional space is provided for some questions within the booklet (if required). If further space is required for any question, you should use the lined page(s) at the end of this booklet. The question number(s) should be clearly shown.

(Turn over)

INFORMATION FOR CANDIDATES

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

Your ability to communicate and organise your ideas will be assessed in questions that are worth 6 or 8 marks. The accuracy of your writing will be assessed in your answer to question 2(c).

SECTION A – CORE THEMES

Answer ALL of the questions in this section.

THEME 5: Weather, Climate and Ecosystems

1 (a) Study the map opposite.

- (i) Define the term biome. Tick (✓) ONE box from the options below. [1 mark]**

The movement of nutrients within an environment

☐

A large-scale ecosystem

☐

A small-scale ecosystem

☐

(Turn over)

1 (a) (ii) Describe the global distribution of tropical rain forests. [2 marks]

1 (a) (iii) Explain why tropical rainforests are found in these areas. [4 marks]

(Turn over)

- 1 (b) (i) Give TWO types of human activity that lead to deforestation in tropical rainforests. [2 marks]**

Activity 1 _____

Activity 2 _____

(Turn over)

Study the graph opposite.

(ii) Describe the trend shown in the bar chart opposite.

Use data in your answer. [2 marks]

(Turn over)

1 (c) Study the graph opposite.

Draw conclusions from the graph opposite.

[4 marks]

(Turn over)

Study the image opposite.

1 (d) A small area of Amazon Rainforest cleared for small-scale food production.

(i) Suggest why the rainforest in this photograph is being cleared. [3 marks]

(Turn over)

1 (d) (ii) Mono-culture is a type of farming found in tropical rainforest areas.

Describe mono-culture. [2 marks]

1 (d) (iii) Give ONE reason why food production reduces biodiversity in tropical rainforests. [2 marks]

1 (d) (iv) Study the resource opposite.

Food production at different scales results in a number of challenges to tropical rainforest ecosystems.

Evaluate these challenges. [6 marks]

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(Turn over)

(Turn over)

Additional space for 1(d)(iv) only:

[illegible]

END OF QUESTION 1

(Turn over)

THEME 6: DEVELOPMENT AND RESOURCE ISSUES

- 2 (a) (i) Identify the key terms for the following definitions using the table below.
Put the correct letter next to the definition.**

[2 marks]

Differences in the wealth, standard of education and healthcare in countries across the world

☐

The total value of money (including goods and services) owned by a country

☐

LETTER	TERM
A	National Wealth
B	Global Trade
C	Imports
D	Global Inequalities
E	Geo-Political Relationships

(Turn over)

2 (a) (ii) Give ONE reason why economic measures of development have limitations. [2 marks]

(Turn over)

2 (b) Study the table opposite.

- (i) Calculate the percentage increase in GNI per capita for the UK. Show your working. [2 marks]**

Answer: _____ %

(Turn over)

2 (b) (ii) Compare the patterns of GNI per capita between the HICs and LICs in the table. [4 marks]

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(Turn over)

2 (c) Study the resource opposite.

One way of increasing the income of LIC countries is through Fair Trade projects.

Fair Trade projects are the best way to help the development of LICs.

**To what extent do you agree with this statement?
[8 marks]**

The accuracy of your writing will be assessed in your answer to this question. [3 marks]

(Turn over)

(Turn over)

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Additional space for 2(c) only:

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(Turn over)

2 (d) There are also inequalities between regions in the UK. Some regions of the UK are more deprived than others.

(i) Describe how a negative multiplier affects a deprived region in the UK. [4 marks]

2 (d) (ii) Explain why investment can create growth in deprived regions. [6 marks]

(Turn over)

(Turn over)

Additional space for 2(d)(ii) only:

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END OF QUESTION 2

(Turn over)

SECTION B – OPTIONS

Answer ONE question in this section, EITHER Question 3 OR Question 4.

THEME 7: SOCIAL DEVELOPMENT ISSUES

3 (a) Study the graph opposite.

(i) Tick (✓) TWO correct statements about the graph from the box below. [2 marks]

	Statement	Tick (✓)
A	The death rate was 6 per 1000 in 2000	
B	The birth rate has decreased over time	
C	Death rate has changed more quickly than birth rate	
D	The birth rate has increased over time	
E	The death rate was 6 per 1000 in 1985	

(Turn over)

3 (a) (ii) Give TWO social factors that influence death rates. [2 marks]

Social factor 1 _____

Social factor 2 _____

(iii) Suggest why the death rate shown in the graph opposite has changed. [2 marks]

(Turn over)

3 (a) (iv) Explain why social factors can influence changing birth rates in sub-Saharan Africa.

[6 marks]

(Turn over)

(Turn over)

Additional space for 3(a)(iv) only:

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(Turn over)

3 (b) Study the map opposite.

(i) Describe the pattern of change in HIV rates shown on the map. [4 marks]

(Turn over)

3 (b) (ii) Describe ONE challenge created by HIV in sub-Saharan Africa. [2 marks]

3 (c) Study the images opposite.

Evaluate strategies used to tackle HIV in sub-Saharan Africa. [6 marks]

(Turn over)

Additional space for 3(c) only:

[illegible]

END OF QUESTION 3

(Turn over)

**If you have answered Question 3 DO NOT
answer Question 4.**

THEME 8: ENVIRONMENTAL CHALLENGES

4 (a) Study the graph opposite.

**(i) Tick (✓) TWO correct statements about the
graph from the box below. [2 marks]**

	Statement	Tick (✓)
1.	The ecological footprint was 2.5 hectares per person in 2009	
2.	Natural resources have decreased over time	
3.	Hectares of natural resources and ecological footprint were equal in 1990	
4.	Natural resources have increased over time	
5.	The ecological footprint was 2.5 hectares per person in 1995	

(Turn over)

4 (a) (ii) Suggest ONE issue that arises after 1970 on the graph. [2 marks]

4 (a) (iii) Describe TWO factors that influence the size of a person's ecological footprint. [4 marks]

Factor 1 _____

(Turn over)

Factor 2 _____

4 (a) (iv) Growing consumerism may lead to further environmental impacts.

Explain why monitoring ecological footprints is important for future environmental planning. [6 marks]

[illegible]

(Turn over)

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Additional space for 4(a)(iv) only:

[illegible]

(Turn over)

4 (b) Study the map opposite.

Describe the pattern of areas at risk of desertification in Africa as shown on the map. [4 marks]

(Turn over)

4 (c) Study the images opposite.

Evaluate strategies used to tackle climate change at an international level. [6 marks]

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Additional space for 4(c) only:

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END OF QUESTION 4

END OF PAPER

(Turn over)

Question number	ADDITIONAL PAGE, IF REQUIRED. WRITE THE QUESTION NUMBER(S) IN THE LEFT-HAND MARGIN.

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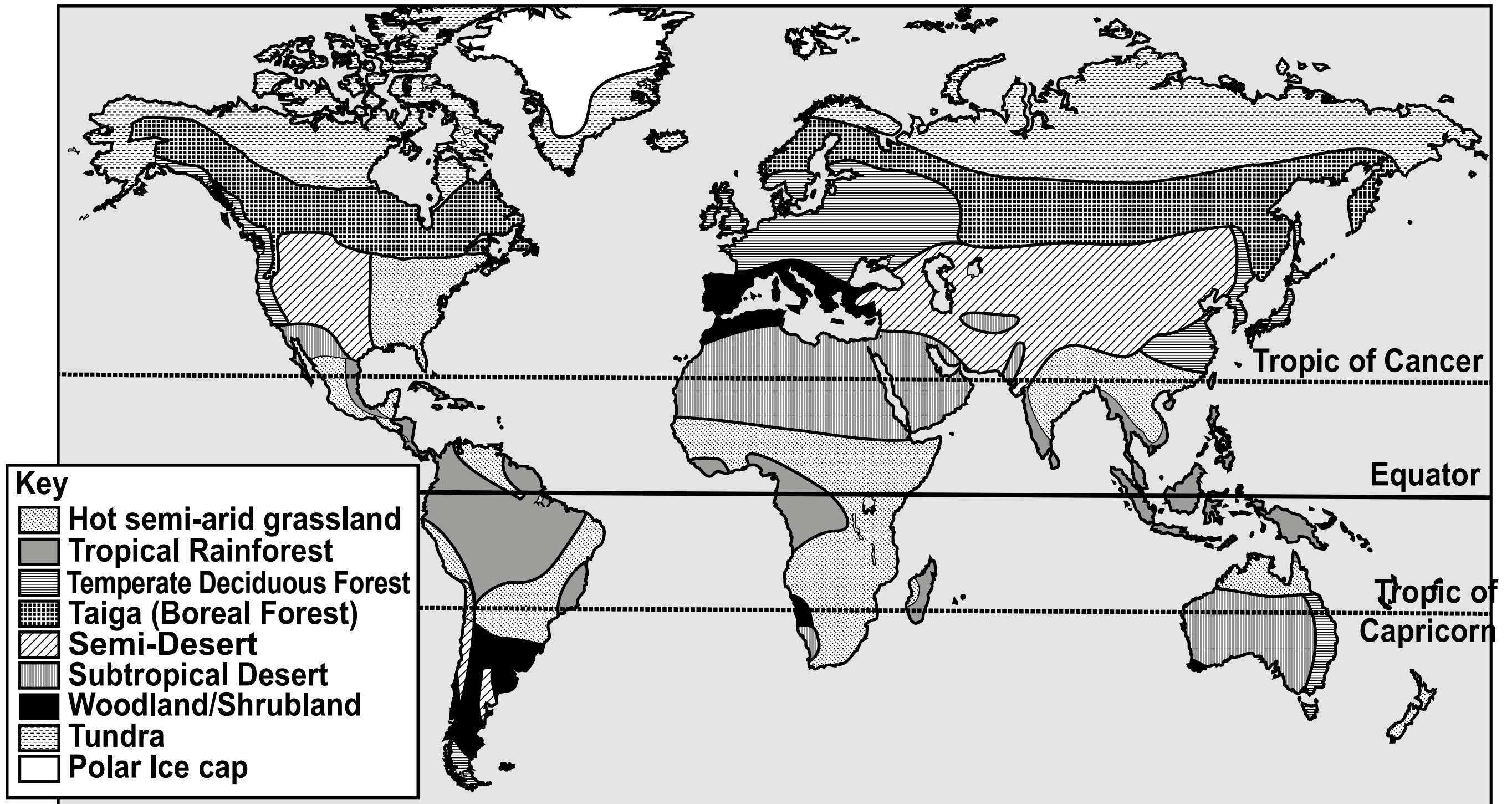
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Question number	ADDITIONAL PAGE, IF REQUIRED. WRITE THE QUESTION NUMBER(S) IN THE LEFT-HAND MARGIN.

either
or

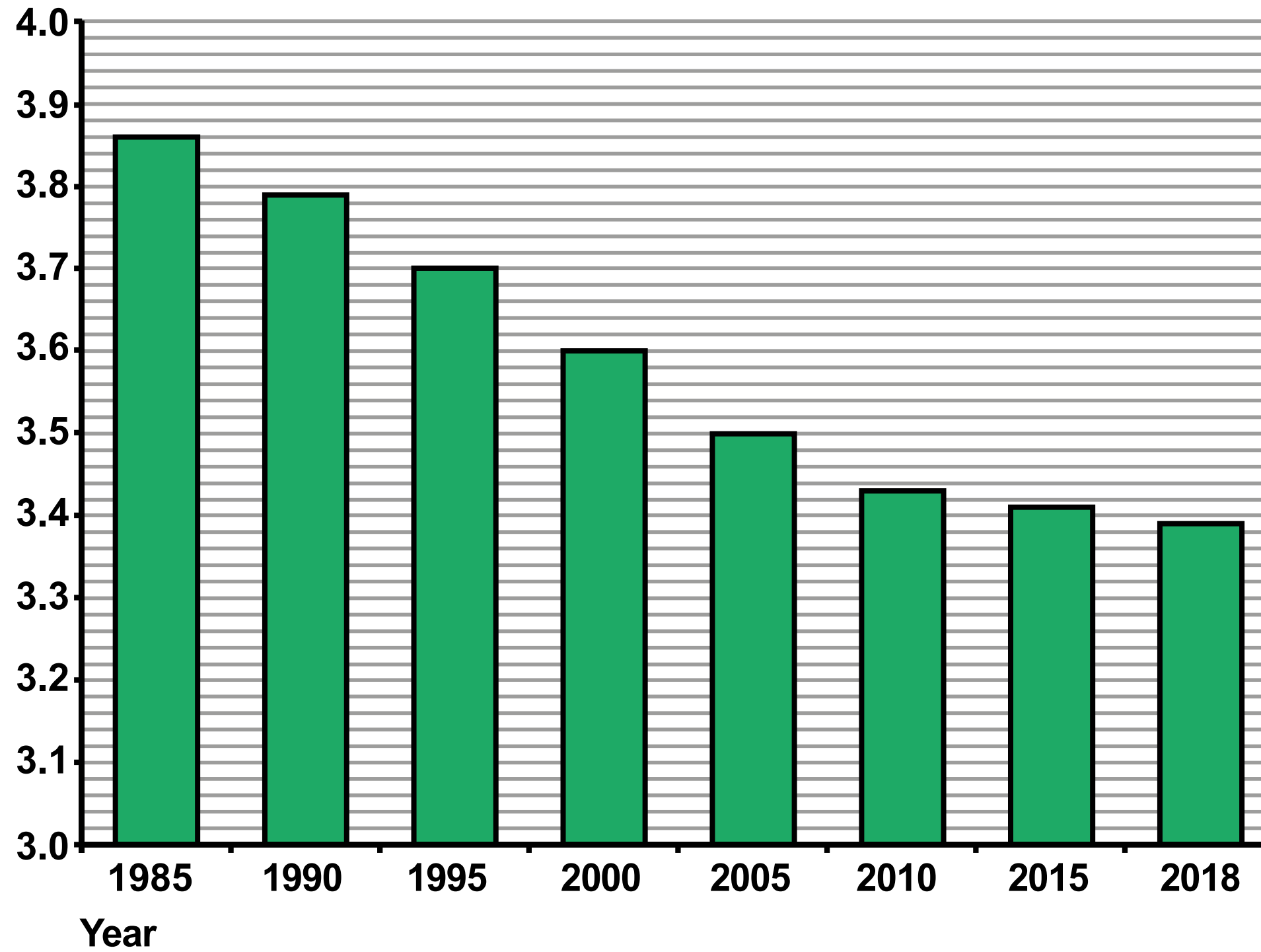
For Examiner's use only		
	Maximum Mark	Mark Awarded
Question 1	28	
Question 2	28	
Writing accurately	3	
Question 3	24	
Question 4	24	
Total	83	

Distribution of Global Biomes

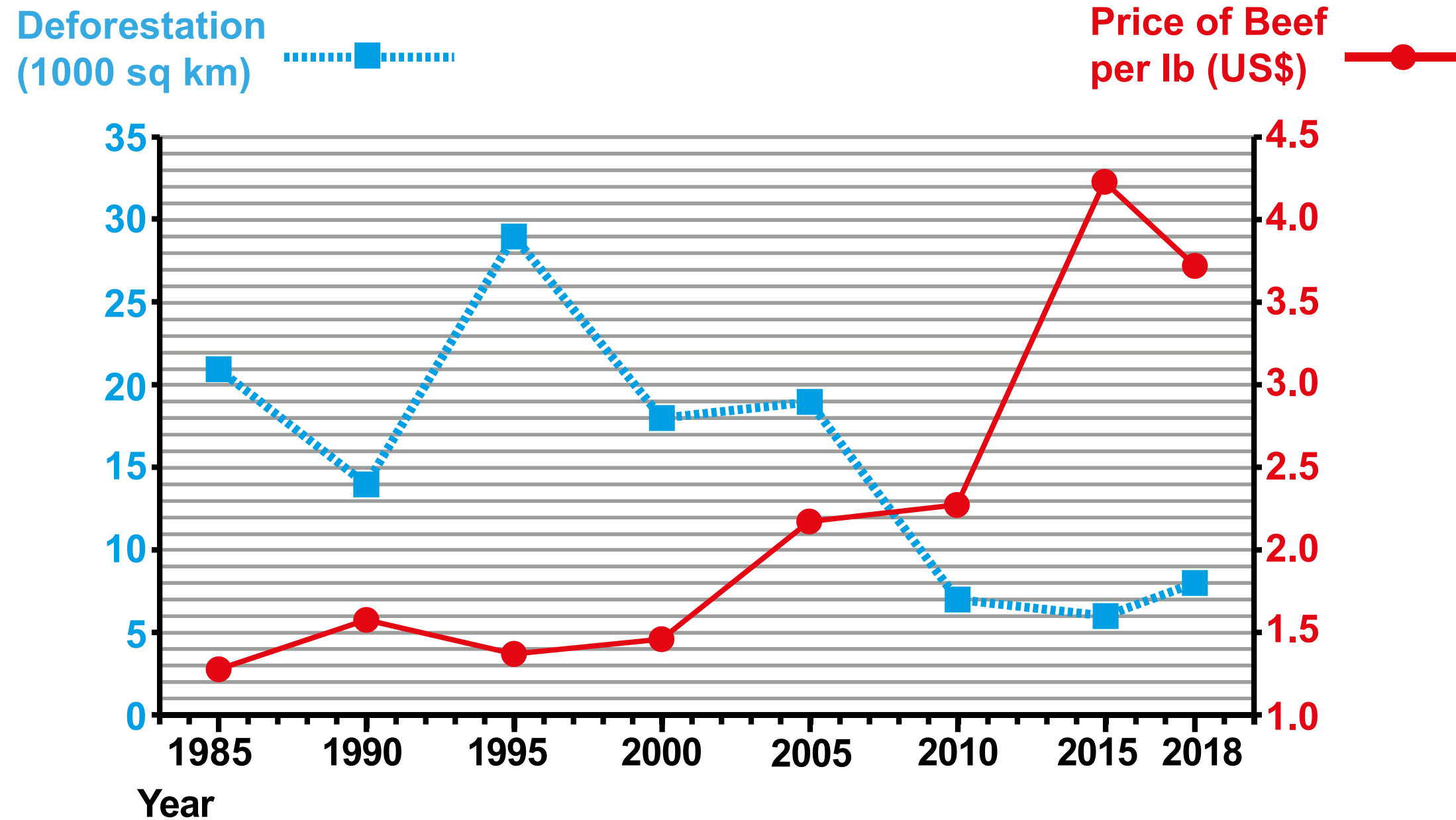


FOREST COVER IN THE BRAZILIAN AMAZON RAINFOREST

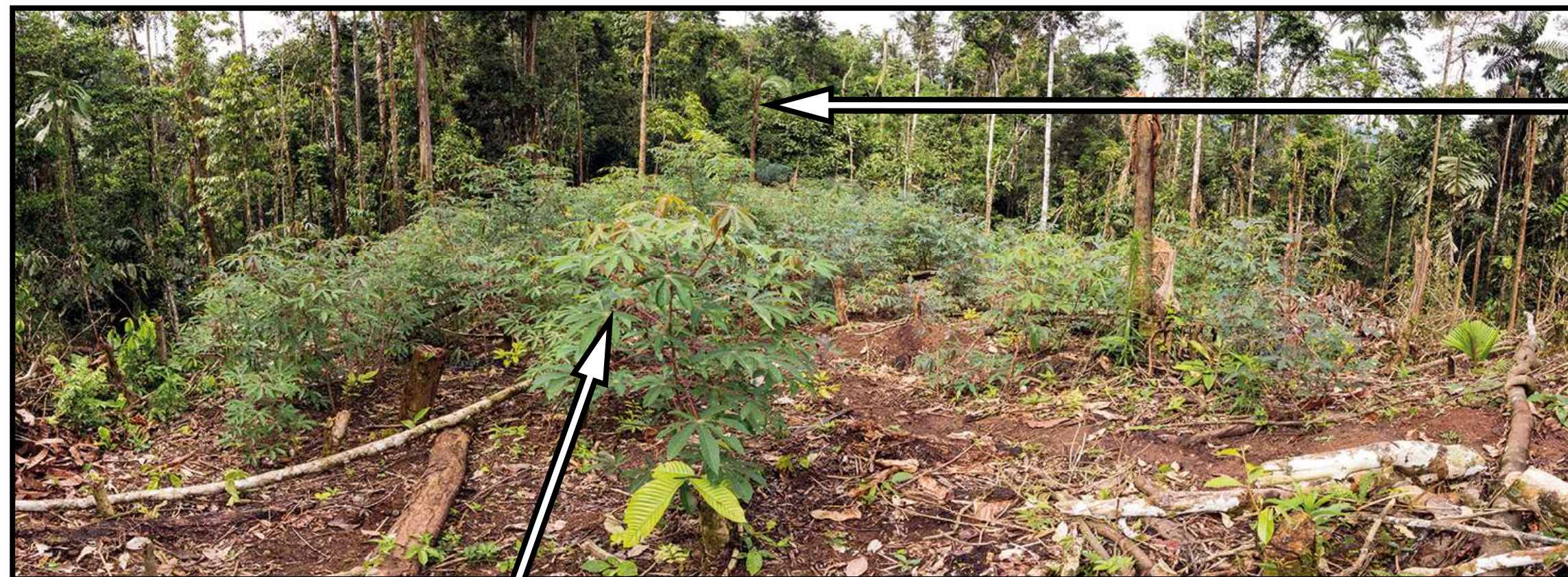
Estimated forest cover (million sq km)



DEFORESTATION IN THE BRAZILIAN AMAZON RAINFOREST AND THE PRICE OF BEEF



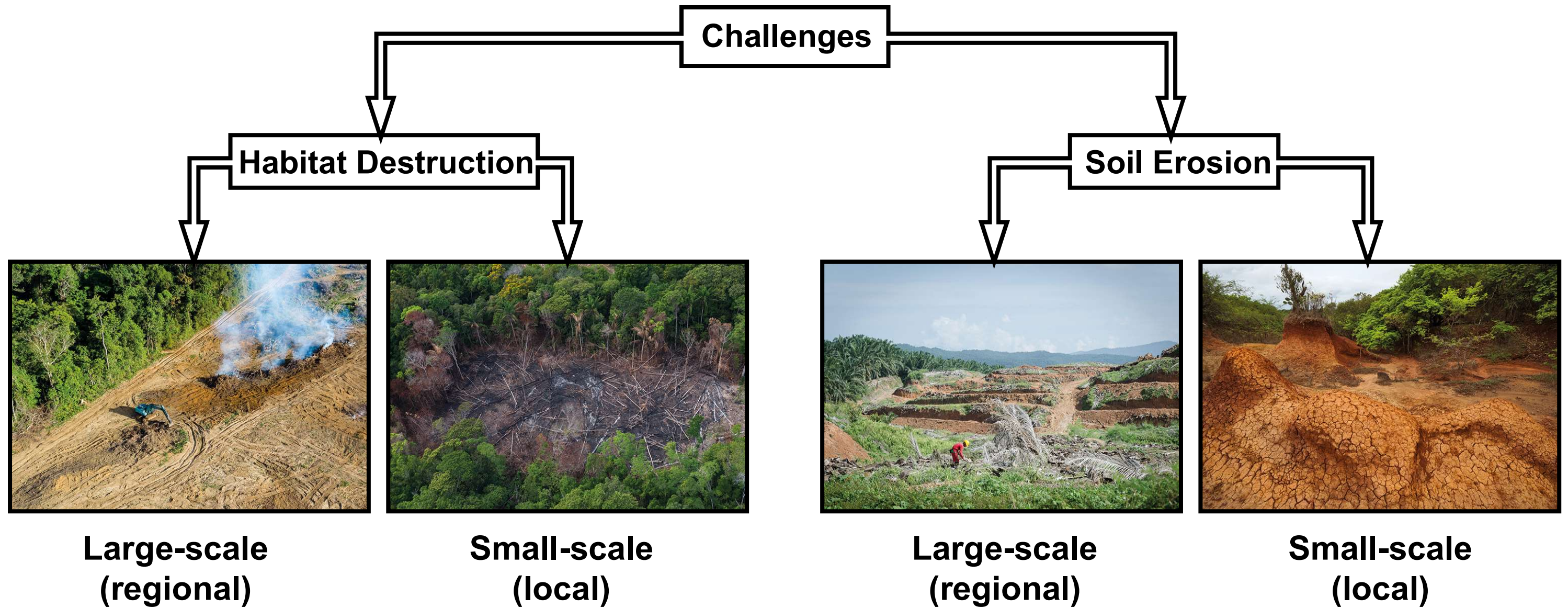
A SMALL AREA OF AMAZON RAINFOREST CLEARED FOR SMALL SCALE FOOD PRODUCTION



Untouched
rainforest

Cassava crops planted

CHALLENGES OF FOOD PRODUCTION IN TROPICAL RAINFORESTS



GNI = Gross National Income

Country	GNI per capita 2010	GNI per capita 2018	Percentage (%) increase or decrease	Type of country
UK	38540	42340		HIC
Denmark	58980	60190	2	HIC
Germany	43330	47180	9	HIC
Japan	42150	41340	-2	HIC
Netherlands	49720	51260	3	HIC
Botswana	6890	7750	12	LIC
Angola	3960	3370	-15	LIC
Belize	3740	4720	26	LIC
Kenya	780	1620	108	LIC
Namibia	4650	5250	13	LIC

HIC

High Income Country

LIC

Low Income Country

GHANA FAIR TRADE CHOCOLATE



- Growing cocoa beans is hard work and relies on good weather
- Cocoa products account for 25% of Ghana's wealth
- Fair Trade protects the farmers' income against a drop in the price of cocoa
- Fair Trade enables money to go into a community fund to help farmers invest in their businesses e.g. agricultural tools

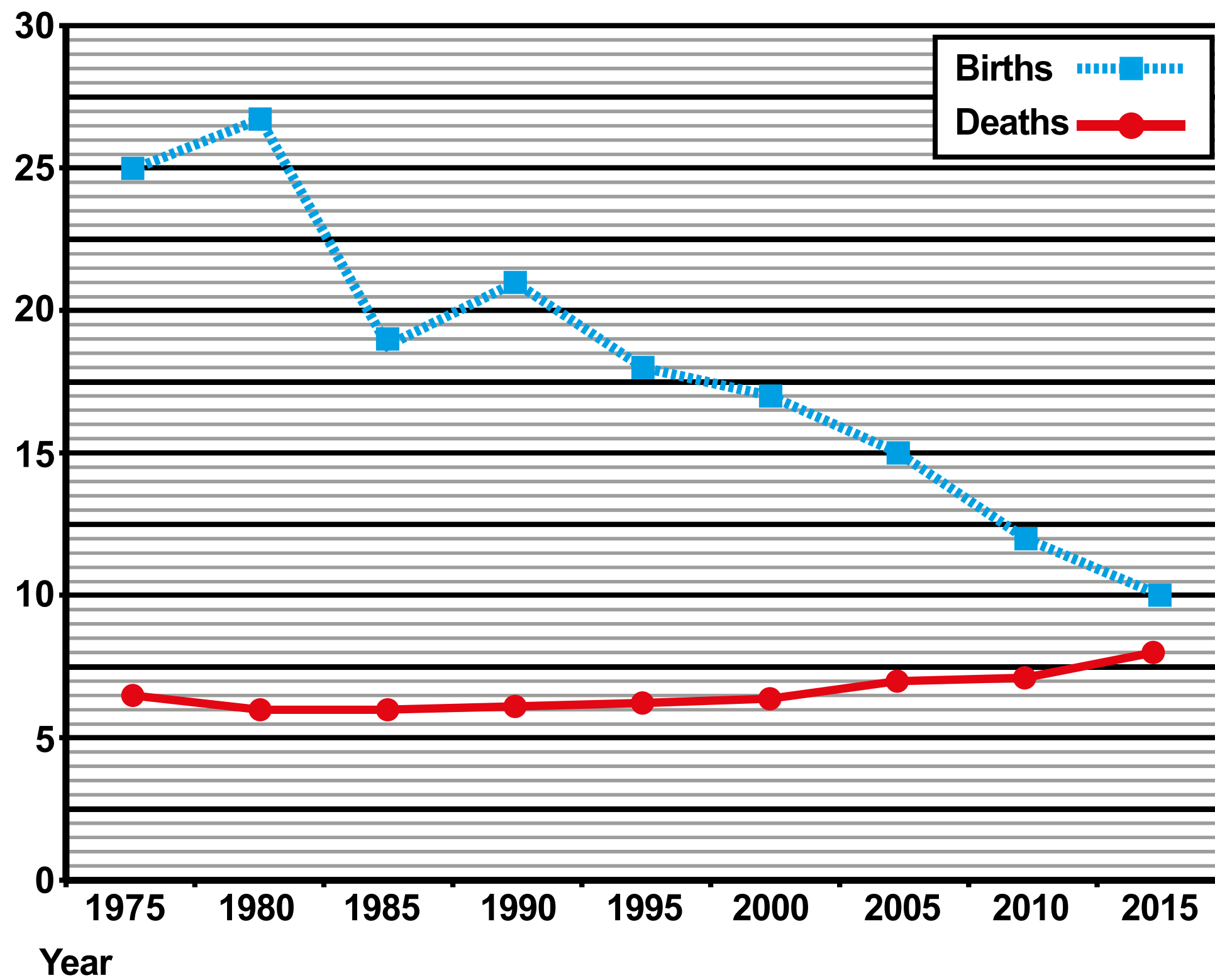
- Without Fair Trade, the farmer would only receive a very small amount of money. This is not enough to provide for their family

Development in Ghana

- The adult literacy rate in Ghana has increased from 57.9% in 2000 to 79% in 2018
- Ghana receives a large amount of aid. In 2017 they received US\$1.2 billion

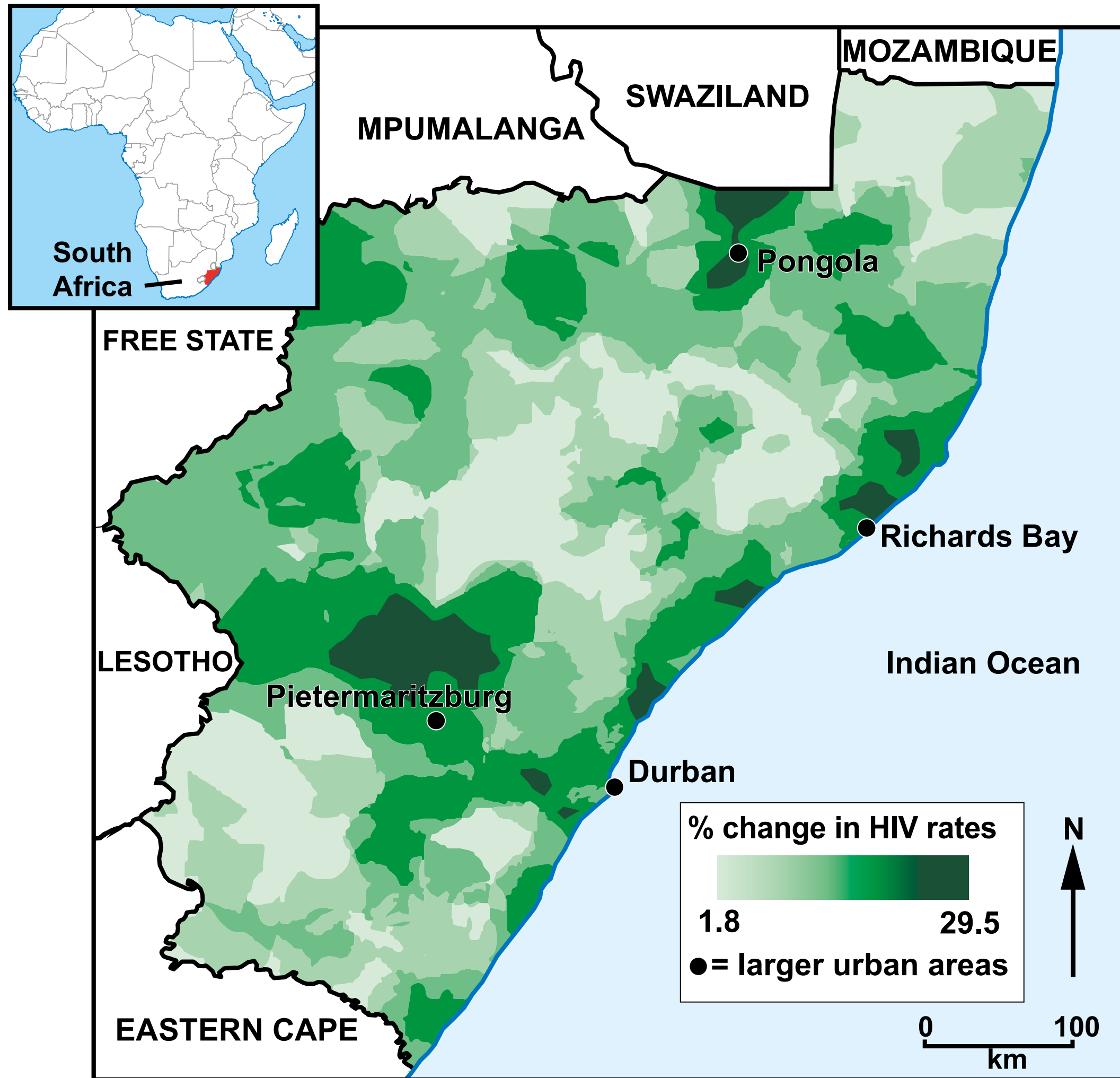
BIRTH AND DEATH RATES FOR MAURITIUS (A LIC IN SUB-SAHARAN AFRICA)

Births/deaths per 1000



HIV RATES IN THE KWAZULU-NATAL REGION OF SOUTH AFRICA

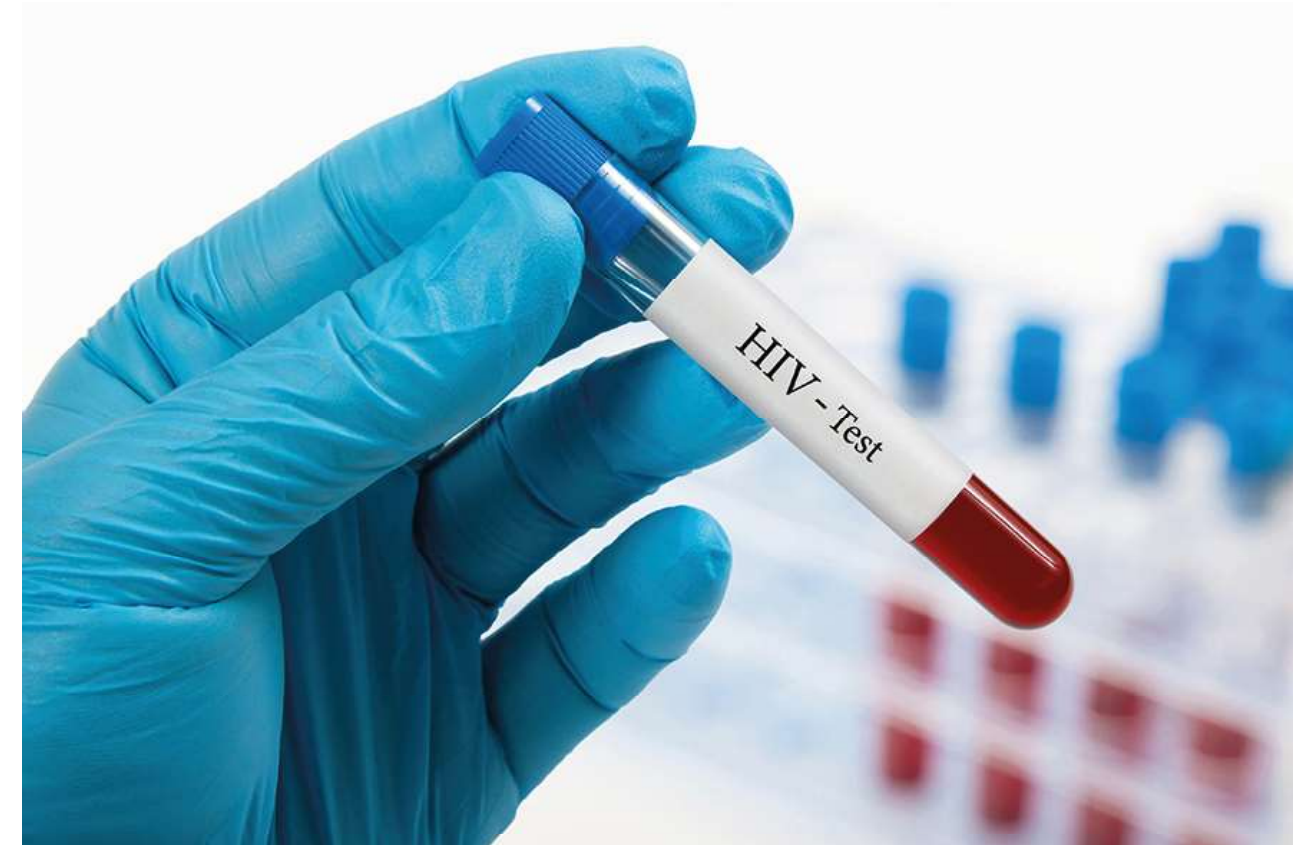
PERCENTAGE CHANGE BETWEEN 2009 AND 2013



SOME METHODS OF TACKLING HIV INFECTIONS IN SUB-SAHARAN AFRICA



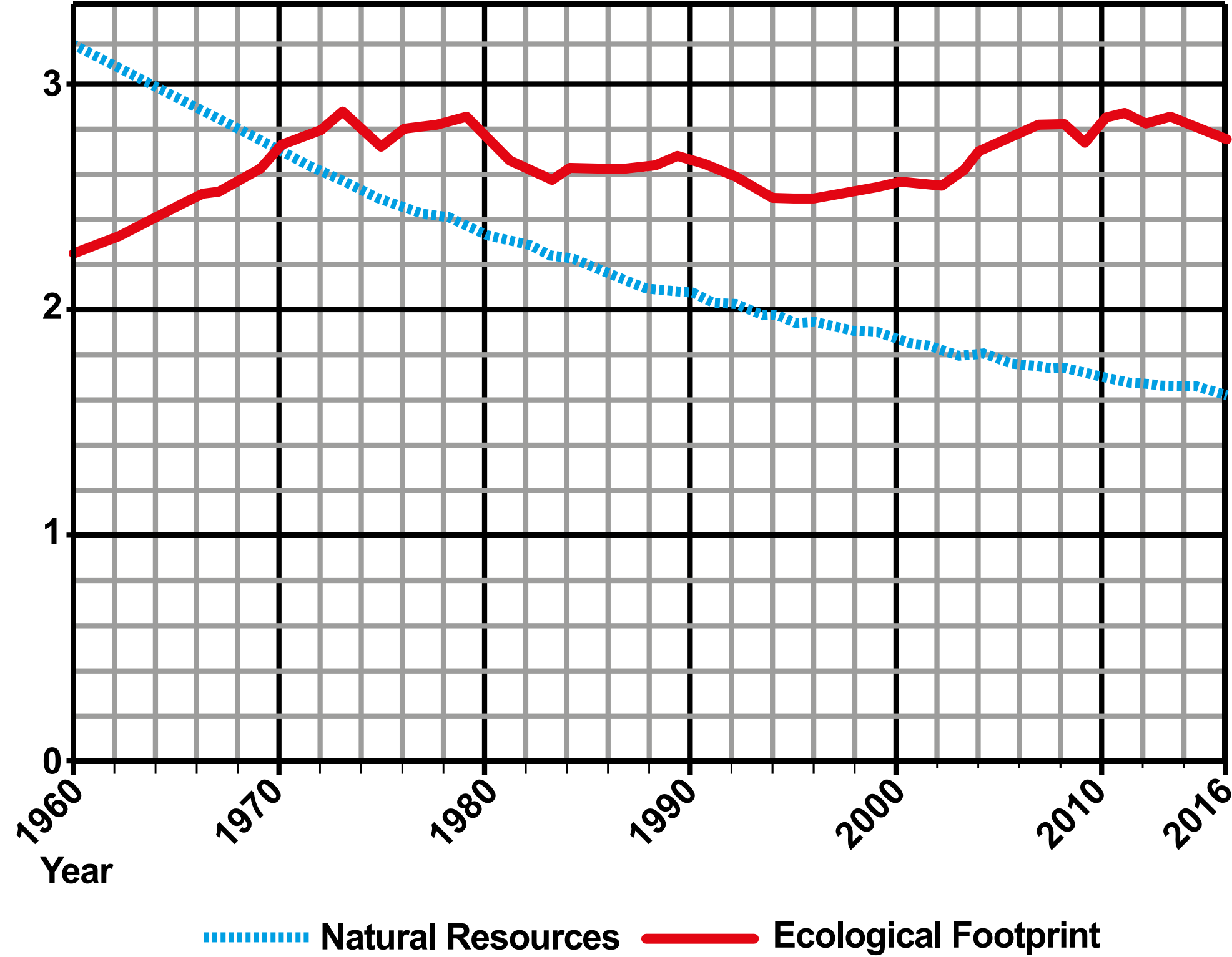
Medication to manage HIV



HIV testing

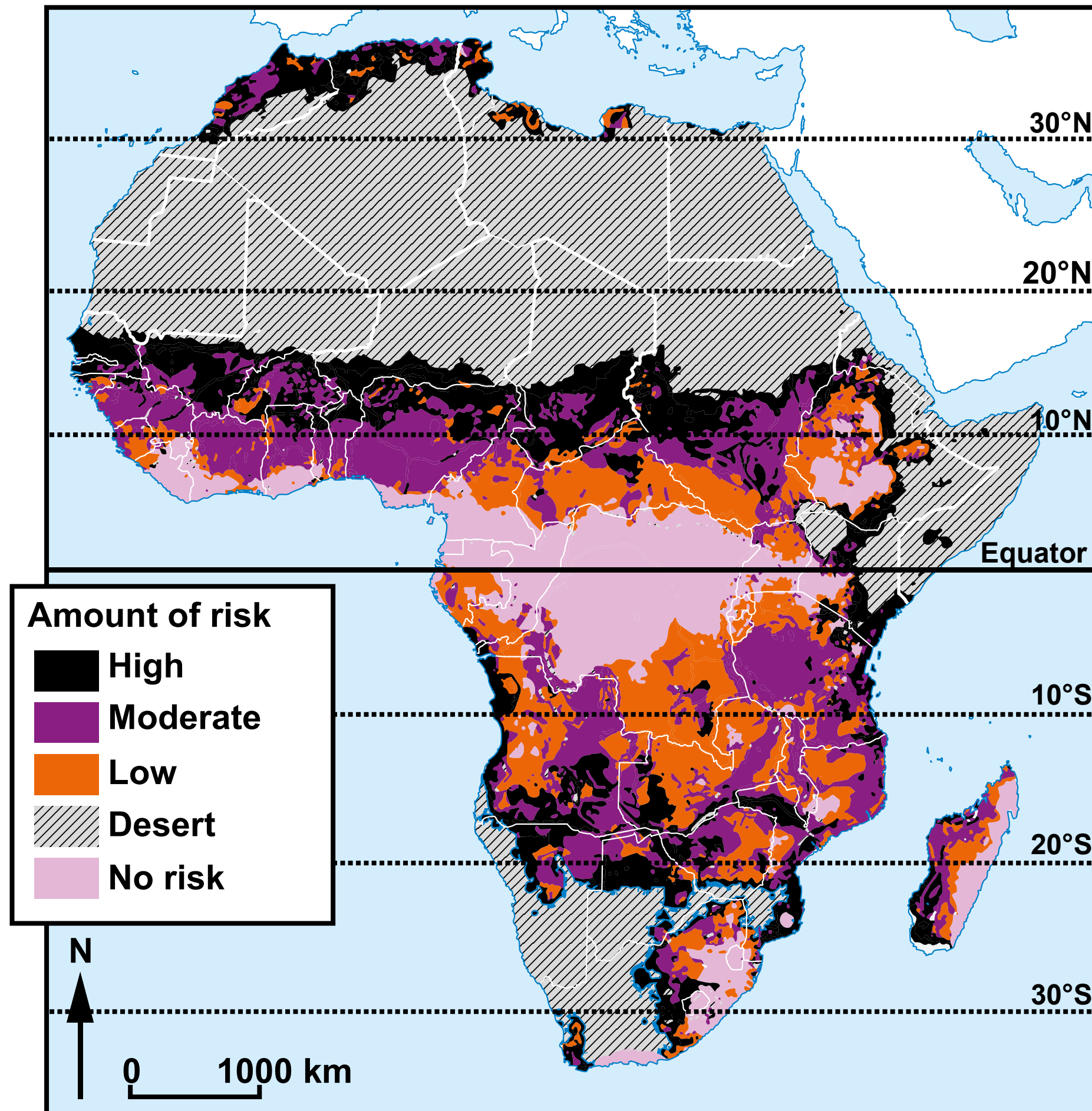
GLOBAL ECOLOGICAL FOOTPRINT AND NATURAL RESOURCES

Land area
(global hectares per person)



Natural resources - resources an ecosystem produces that can be used by people.

AREAS OF RISK OF DESERTIFICATION IN AFRICA



INTERNATIONAL STRATEGIES TACKLING CLIMATE CHANGE



Climate Change Conference



Organised Climate Protests across global cities