Surname		Centre Number	Candidate Number
First name(s)			0

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GCSE

3110U20-1

Z22-3110U20-1

TUESDAY, 7 JUNE 2022 – AFTERNOON

GEOGRAPHY
Unit 2: Environmental and Developmental Issues

1 hour 30 minutes

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

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ADDITIONAL MATERIALS

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

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen. Do not use gel pen or correction fluid.

Write your name, centre number and candidate number in the spaces at the top of this 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.

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).

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SECTION A – CORE THEMES

Answer **all** of the questions in this section.

THEME 5: Weather, Climate and Ecosystems

1. (a) Study the map below.

Distribution of Global Biomes

Key
- Hot semi-arid grassland
- Tropical Rainforest
- Temperate Deciduous Forest
- Taiga (Boreal Forest)
- Semi-Desert
- Subtropical Desert
- Woodland/Shrubland
- Tundra
- Polar Ice cap

Tropic of Cancer

Equator

Tropic of Capricorn
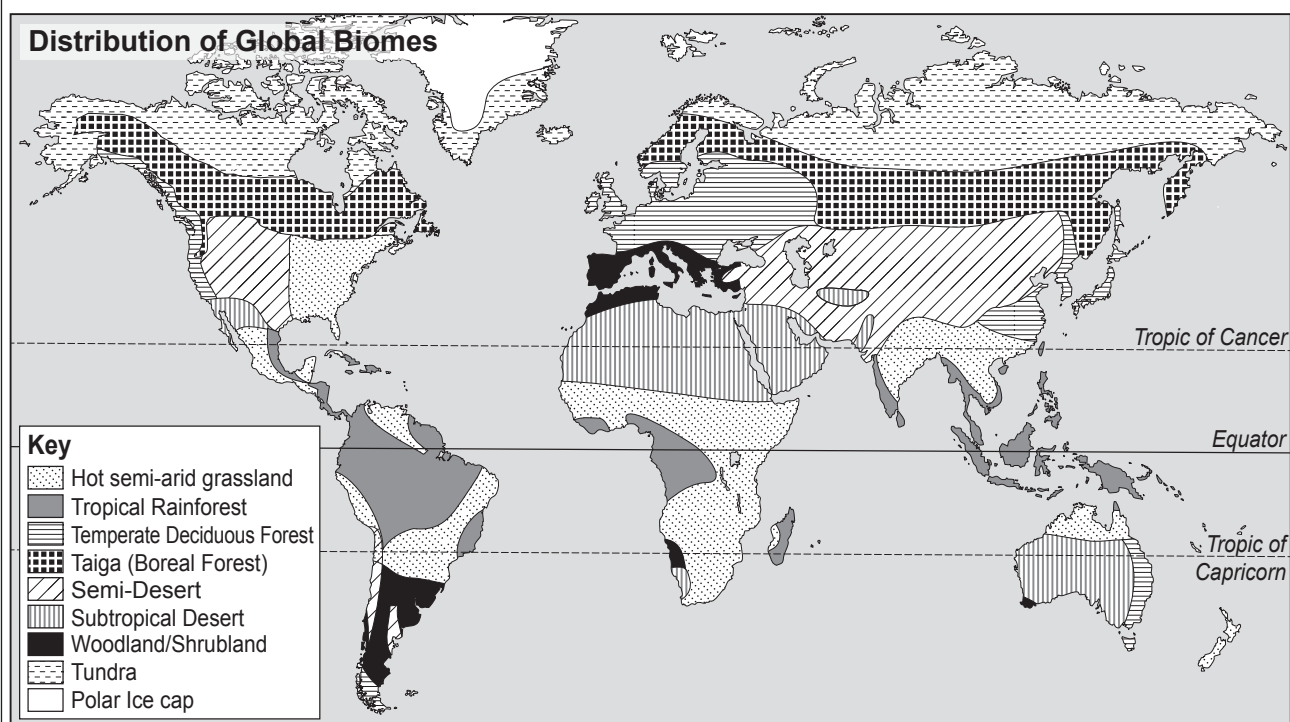
(i) Define the term biome. Tick (✓) **one** box from the options below. [1]

The movement of nutrients within an environment ☐

A large-scale ecosystem ☐

A small-scale ecosystem ☐

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(ii) Describe the global distribution of tropical rainforests. [2]

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

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

Activity 1 ....

Activity 2 ....

(3110U20-1) **Turn over.**

Study the graph below.

Forest cover in the Brazilian Amazon Rainforest
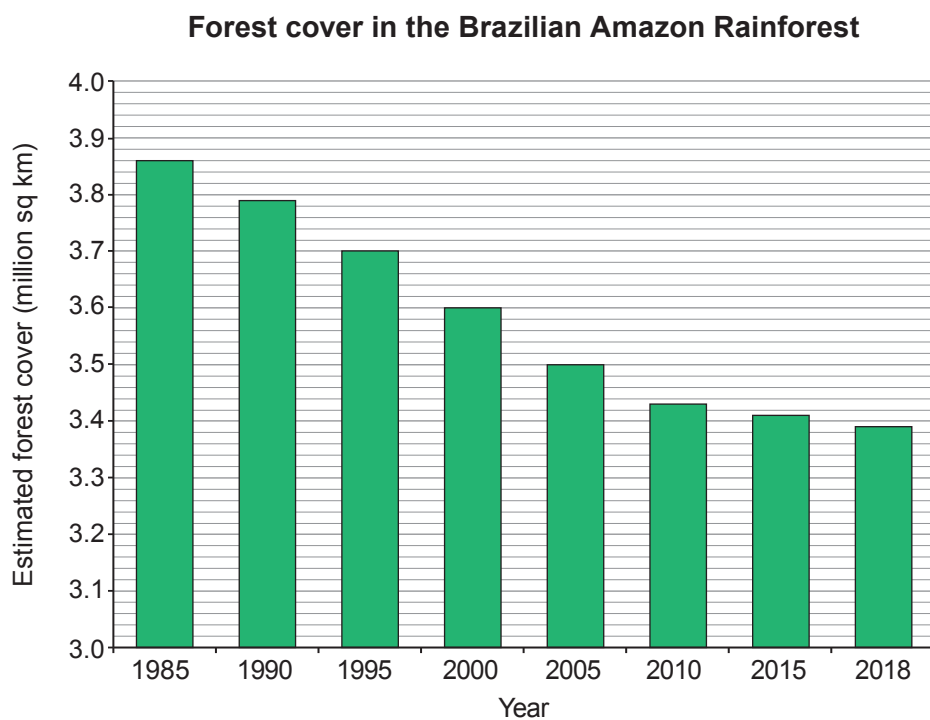
(ii)   Describe the trend shown in the bar chart above. Use data in your answer.   [2]

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(c)   Study the graph below.

Deforestation in the Brazilian Amazon Rainforest and the Price of Beef
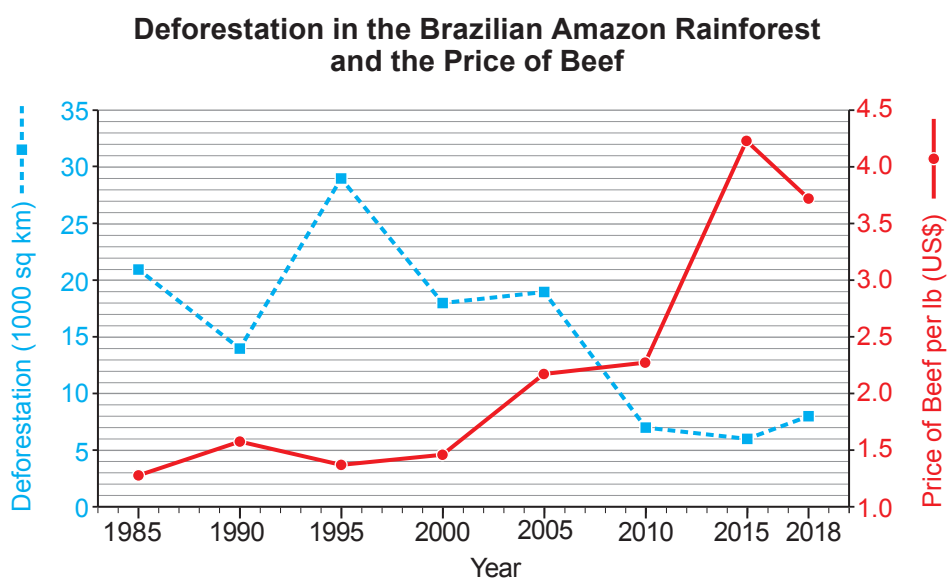
Draw conclusions from the graph above.   [4]

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Study the image below.

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

Untouched rainforest

Cassava crops planted

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

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(ii) Mono-culture is a type of farming found in tropical rainforest areas.
Describe mono-culture. [2]

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(iii) Give **one** reason why food production reduces biodiversity in tropical rainforests.
[2]

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(iv)   Study the resource below.

Challenges of Food Production in Tropical Rainforests

Challenges

Habitat Destruction

Soil Erosion

| Large-scale (regional) | Small-scale (local) | Large-scale (regional) | Small-scale (local) |

Food production at different scales results in a number of challenges to tropical rainforest ecosystems.
Evaluate these challenges.   [6]

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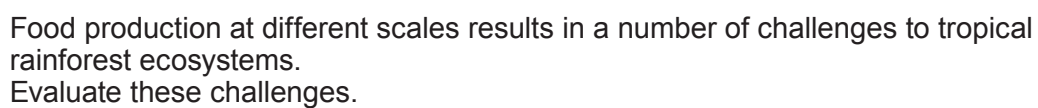
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End of Question 1

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only

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]

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

(ii) Give **one** reason why economic measures of development have limitations. [2]

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(b) Study the table below.

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

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

Answer: .... %

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

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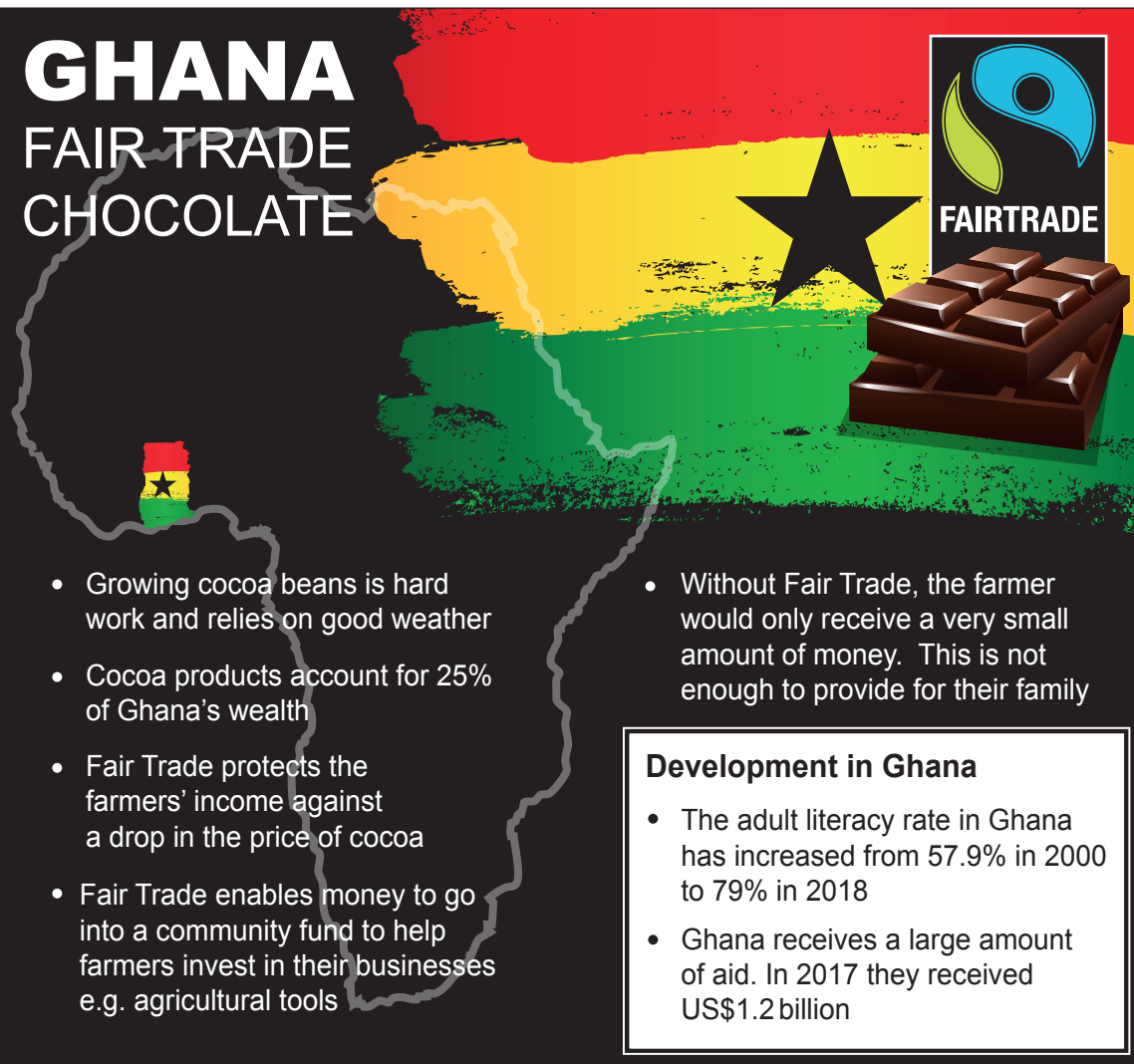© WJEC CBAC Ltd.   (3110U20-1)

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

GHANA
FAIR TRADE
CHOCOLATE

FAIRTRADE

- 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

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

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

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

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(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]

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

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

End of Question 2

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 below.

Birth and Death Rates for Mauritius (a LIC in sub-Saharan Africa)
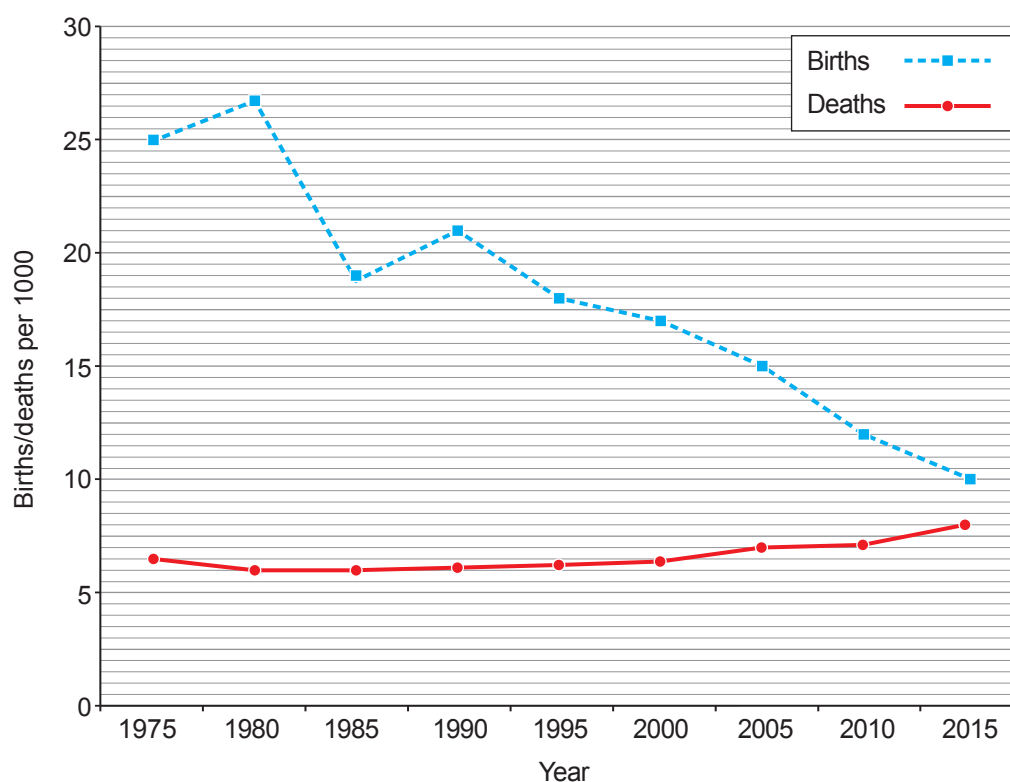
(i) Tick (✓) **two** correct statements about the graph from the box below. [2]

	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	

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(ii)   Give **two** social factors that influence death rates.   [2]

Social factor 1 ....

Social factor 2 ....

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

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(iv)   Explain why social factors can influence changing birth rates in sub-Saharan Africa.   [6]

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(b)   Study the map below.

HIV Rates in the KwaZulu-Natal Region of South Africa

Percentage change between 2009 and 2013

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

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(ii)   Describe **one** challenge created by HIV in sub-Saharan Africa   [2]

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(c)   Study the images below.

Some methods of tackling HIV infections in sub-Saharan Africa

Medication to manage HIV

HIV testing

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

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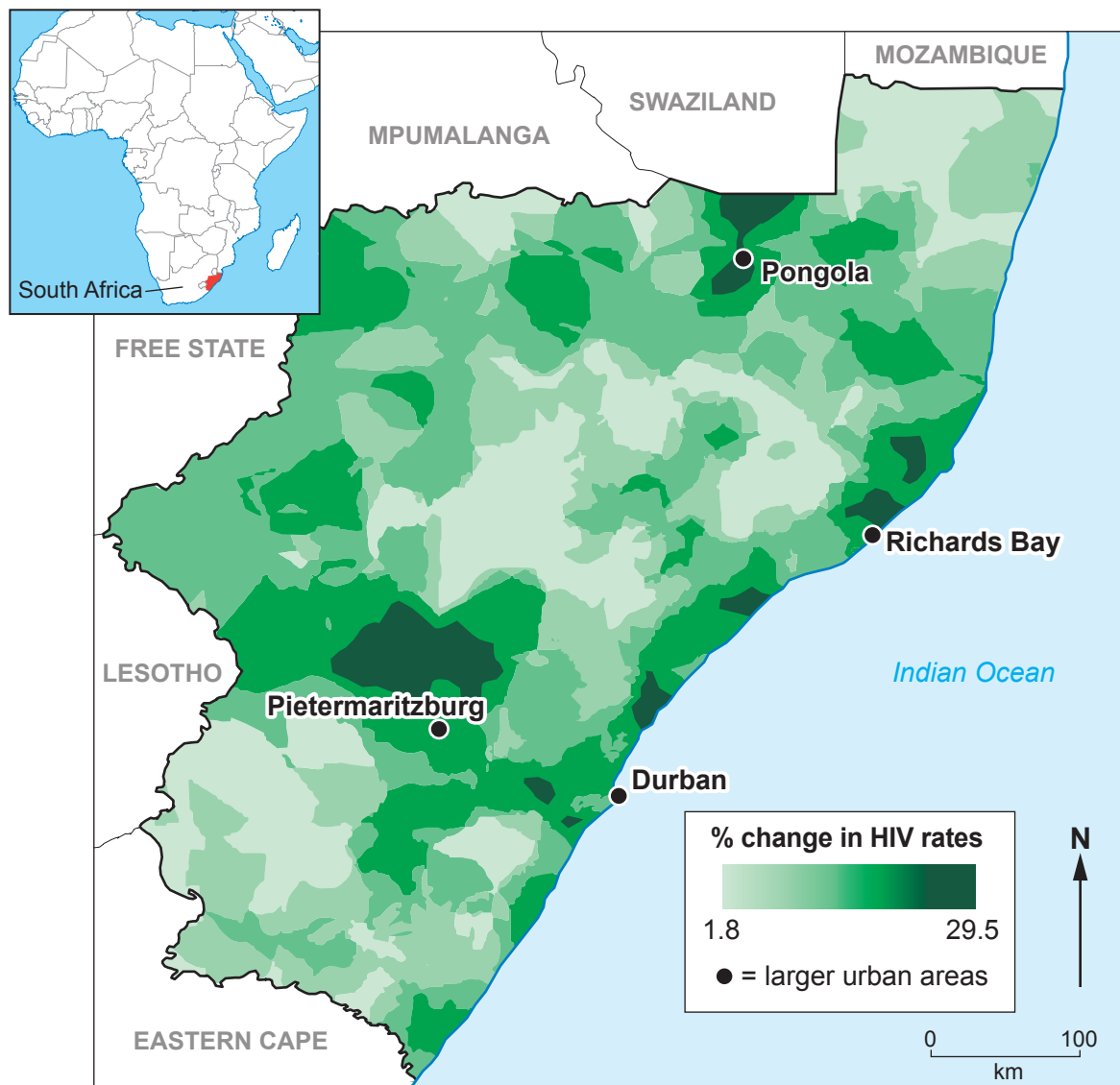...

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End of Question 3

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Turn over.

If you have answered Question 3 **do not** answer Question 4.

THEME 8: Environmental Challenges

4. (a) Study the graph below.

Global Ecological Footprint and Natural Resources
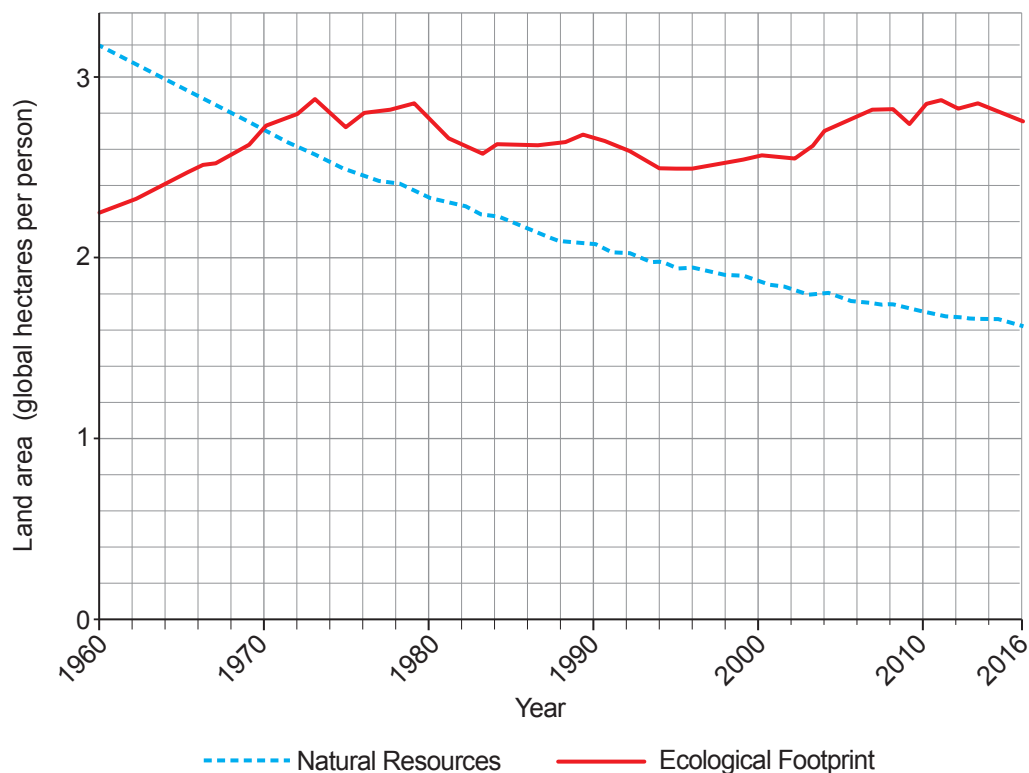
Natural resources – resources an ecosystem produces that can be used by people.

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

	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	

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(ii) Suggest **one** issue that arises after 1970 on the graph. [2]

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

Factor 1 ....

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Factor 2 ....

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

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

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(b)   Study the map below.

Areas at Risk of Desertification in Africa

Amount of risk
High
Moderate
Low
Desert
No risk

N

0   1000 km

30°N
20°N
10°N
Equator
10°S
20°S
30°S

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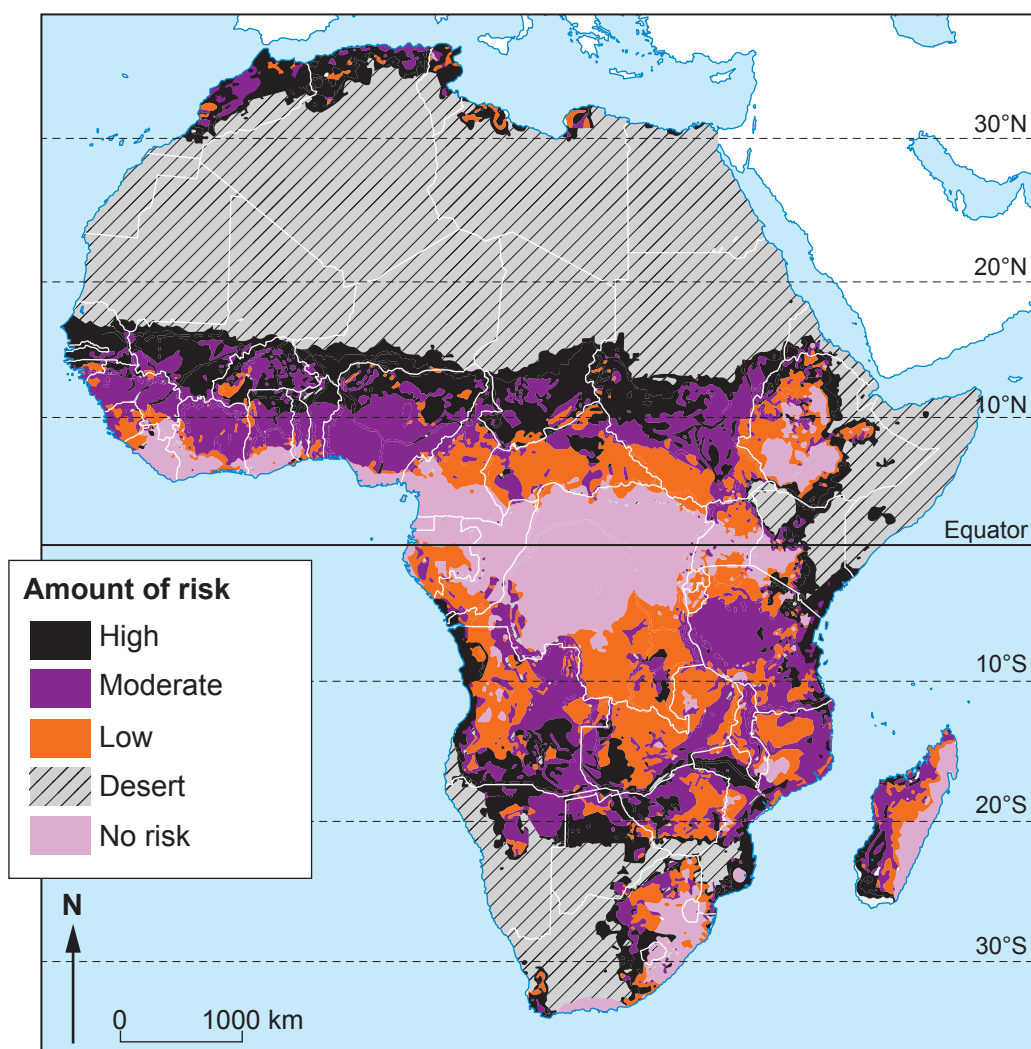
Describe the pattern of areas at risk of desertification in Africa as shown on the map. [4]

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(c) Study the images below.

International Strategies Tackling Climate Change

Climate Change Conference

Organised Climate Protests across global cities

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

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