

Deforestation

Task 1: Read the information below and answer the questions about deforestation.

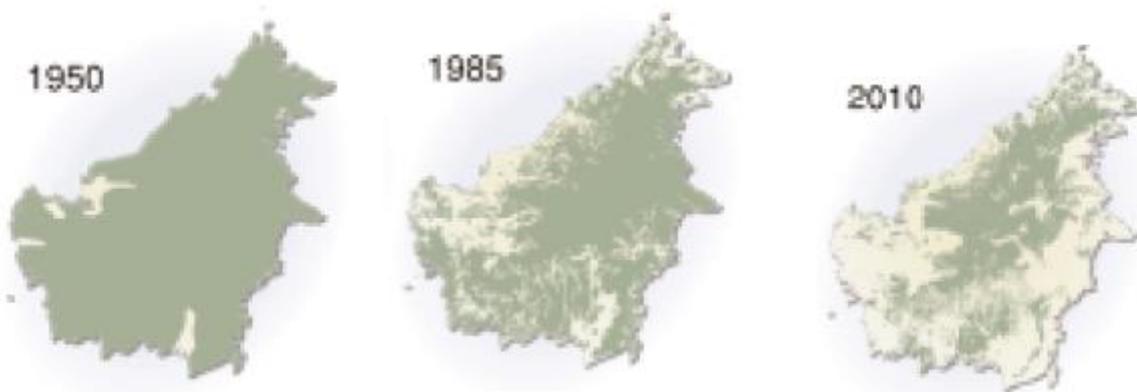
Introduction

Rainforests are found in 80+ countries around the equator (where the sun's hottest). They are homes to trees, plants, animals and local people. They are important in keeping the Earth's climate as we know it. They do this by: a) releasing moisture into the atmosphere which forms rainclouds which are carried by the winds to other countries where they, for example 'feed' the crops b) removing carbon dioxide, storing the carbon in their trunks and releasing the oxygen that we breathe.



What's happening to rainforests?

Every year about 13 million hectares of rainforest are lost worldwide – the same as 8.5 million football pitches a year, or 23,483 pitches a day! The images below show the extent of deforestation (*cutting down and removal of forests*) in Borneo, Asia as the rainforest size (shaded areas) decreases:



Why is this happening?

Around the world, rainforests are being cut down and burnt a process called '*slash and burn*'. But why is this occurring?

- Subsistence farming – local people may cut down parts of the rainforest in order to make land, for example, to grow food crops and graze cattle for personal or local consumption.
- Logging – trees cut down to provide wood for making paper, furniture or burning, for example. Hardwood, such as *mahogany*, is particularly good. Attempts to conserve forests are undermined by illegal logging.
- Infrastructure building – governments may demolish parts of the rainforest in order to build road networks which aim to connect towns and villages and aim to improve the livelihoods of their people.
- Cattle farming – In order to make space to rear cattle, farmers cut down large parts of the rainforest. Why? Because cattle farming for the production of beef is big business! In Brazil, which is the world's largest beef exporter, around 70% of the area deforested is now cattle pasture. Restaurants, such as McDonalds, rely on this meat for their hamburgers. But, Cattle ranching in Brazil is estimated to have emitted the equivalent of some 9 to 12 billion tons of CO₂ over the last decade. This is a huge amount, roughly equivalent to two years' worth of greenhouse gas emissions from the United States.



All bad? No. These activities can provide jobs for local people and boost the country's economy through the selling abroad (export) of beef, for example.

What is the impact of this?

Losing the rainforests is a serious concern and could mean:

- Loss of many of the world's plants and animals – some 137 species of plants, animals and insects are wiped out every day as a result of rainforest destruction.
- Local people lose their homes and cultures – indigenous people, such as Amazonian tribes, are forced to leave their homes following deforestation which can bring an end to their traditional way of life.
- The environment suffers - rainforest trees and plants remove carbon dioxide from the atmosphere, a main global warming gas, and release oxygen. Therefore removing trees, for example, affects climate change.

How can careful management protect the fragile rainforests?



Sustainable development involves meeting the needs of the current generation (you and me) without stopping future generations (your children) from meeting their needs. For example, if you cut down a rainforest and do not replant it, then your children will not be able to enjoy that rainforest when their time comes.

Campaigners, politicians and environmentalists have therefore come up with 4 strategies to try and protect the rainforest. These are the types of things that Prince Charles *would* approve of:

- **Replace** – when trees are cut down for their wood e.g. for Mahogany to make furniture, you replant the trees so they'll grow again for future use
- **Logging quotas** – it would be impractical to ban all logging in all rainforests but by introducing limits on the amount of logging
- **Protect** – you could protect particularly fragile areas by introducing laws to protect certain areas e.g. by outlawing unsustainable logging/farming practises
- **Alternatives** - give local people alternative land to farm or ways of making money so they do not need to cut down the rainforests in order to create land on which to farm.



Questions – *answer these questions using full sentences* – TOTAL MARKS: 25

1. State **and** explain 2 reasons why rainforests are important (4 marks)
2. What is meant by 'slash and burn'? (1)
3. State **and** explain 3 reasons why rainforests are being destroyed (6)
4. What does 'deforestation' mean? (1)
5. Who might benefit from the removal of rainforests and why? (3)
6. State **and** explain 3 negative impacts of rainforest removal (6)
7. Explain 2 ways in which you could carefully manage a rainforest in order to sustainably protect it for future generations (4)

Task 2: Sort the facts and match up which numbers go with which fact! Make sure you read them carefully, as you will be able to work out some of these based on what you have done in lessons.

One and a half	Amount of rainforest, in acres, lost every second of every day.
137	Amount of plant, animals & insect species lost every day.
50,000	Amount of plant, animal & insect species lost every year.
25%	Amount of our medicines we use that are connected to plants in the Rainforest.
10 million	Amount of Rainforest Indians that used to live there.
200,000	Amount of Rainforest Indians that now live there.
90	Amount of Rainforest tribes that have been completely wiped out in the last 100 years.
20%	Amount of the world's oxygen that is made in the rainforest.
80%	Amount of fruit and vegetables that we eat in our country that comes from a rainforest.
2.7 million	Amount of acres that are burnt each year in the Amazon Rainforest.

Task 3: Read through the information below and then answer the questions.

The Amazon Rainforest

The Amazon rainforest is the largest tropical rainforest in the world, covering over five and a half a million square kilometres (1.4 billion acres).

Over half of the Amazon rainforest is located in Brazil but it is also located in other South American countries including Peru, Venezuela, Ecuador, Colombia, Guyana, Bolivia, Suriname and French Guiana.

Rainforests are often called the lungs of the planet for their role in absorbing carbon dioxide, a greenhouse gas, and producing oxygen, upon which all animals depend for survival. Rainforests also stabilize climate, house incredible amounts of plants and wildlife, and produce nourishing rainfall all around the planet

It is home to around 2 and a half million different insect species as well as over 40000 plant species. 10% of the world's known species live in the Amazon rainforest and 20% of the world's bird species live in the Amazon rainforest. There are also a number of dangerous species living in the Amazon rainforest such as the cougar, jaguar and anaconda.

1. What is the Amazon?

2. How big is the Amazon Rainforest?

3. In what countries would I be able to visit the Amazon Rainforest?

4. How many different types of insect live in the Amazon?

5. Do you think the Amazon is a safe place to visit? Explain your answer in detail.
