



Deforestation in Costa Rica

Introduction

Deforestation in Costa Rica

This two-week teaching unit covers the following parts of the AQA specification:

- the causes of deforestation
- the impacts of deforestation
- the strategies for managing the rainforest
- rates of deforestation.

Included in this teaching unit are structured teaching ideas and tailor-made resources, culminating in a sample exam question. It includes a variety of physical, human, economic and issue-based teaching approaches.



Photograph by contributor - Elizabeth Paice

Student activity sheet 2:

Listen to the different groups and complete the table with relevant information.

Interest group	Who was cutting down the trees?		Why were they cutting down the trees?
	Yes	No	
Subsistence farmers			
Commercial farmers			
Logging companies			
National government of Costa Rica			
Tourism companies			
Non-governmental organisations (NGOs)			

Resource sheet 2: Strategies for managing the rainforest sustainably

Strategy	Description	Advantages	Disadvantages
Selective logging	Instead of clearing all the trees in an area, a process called clear felling, the loggers only cut down the high value trees such as mahogany.	Most of the forest is left intact. In the cleared spaces, the younger trees have the space and light to grow, regenerating the forest naturally.	The forest can be damaged if a road is built to the place with the high value trees and heavy lorries are used to remove the logs. If the largest tree is felled, this can damage other trees when it falls to the ground. Many seeds are lost if the largest mature tree is removed.
Replanting	Areas of cleared rainforest can be replanted with new trees. Commercial logging companies set up forest plantations so that they plant and grow the trees they need. Many subsistence farmers practise agroforestry which is where they plant native species of trees on their small plots. This helps to increase their incomes as they can sell the fruit and timber.	If the forest soil hasn't been eroded then newly planted trees can grow quickly in the hot humid conditions. Ecosystems and habitats can be restored, provided that the insect pollinators haven't been eradicated with pesticides. Supplies of timber can be ensured for the future.	It is very expensive to buy and plant the millions of saplings needed. An unsuitable fast-growing species might be used instead of a native wood. If the seeds haven't been kept, then it may be impossible to grow new trees. It can take many years before the trees reach their mature size and height and for the canopy habitats and the intricate food webs to be restored. On forest plantations, the trees are smaller than in the wild.
Conservation	National parks or nature reserves can be set up either by national governments, non-governmental organisations or private companies.	The rainforests and their wildlife are protected from further development and deforestation. Biodiversity can be increased with the help of zoos when animals breed in captivity are released back to the wild.	Wildlife reserves and people-free areas can mean that the traditional practices of local people are no longer allowed and they may be banned from their ancestral lands. New rules and regulations are introduced which can pit the conservationists against local communities.