



The Madagascar Rosy Periwinkle provides the active ingredient for a powerful anti-cancer drug.

Deforestation and Biodiversity

Many of the rainforest plants and animals can be found only in small areas because they need a special environment in which to live. This makes them very vulnerable to deforestation. If their environment is destroyed, they might become extinct. It is estimated that up to 137 species disappear worldwide each day.

The Impact on the Economy

As shown in the table below, both the temperate and tropical rainforests are important contributors to the world's economy. Many of the fruits and vegetables we eat today originated in the rainforest, and about 25 percent of Western pharmaceuticals are derived from both tropical and temperate plants. Yet, Westerners use only about 200 of the estimated 3000 types of fruit indigenous to the rainforests, and only about 1 percent of the trees and plants have been investigated by scientists.

Besides the products provided by the rainforest, ecotourism contributes to the economy of several developing countries. Ecotourists travel to natural environments for the purpose of supporting conservation efforts.

Tropical Rainforests	Temperate and Tropical Rainforests
<ul style="list-style-type: none"> • Fruits (e.g., avocados, grapefruits, pineapples) • Vegetables (e.g., corn, potatoes, rice) • Spices (e.g., black pepper, ginger, sugar cane, coffee) • Nuts (e.g., Brazil nuts, cashews) 	<ul style="list-style-type: none"> • Pharmaceuticals (e.g., anti-cancer drugs) • Timber and wood byproducts, including paper

Products from the rainforest

Who Is Responsible?

On a local level, it may appear that settlers and farmers are responsible for the destruction of the world's rainforests. But on a broader level, the destruction arises in large part from complex interactions among individuals, local businesses, multinational corporations, and governments. In some instances, the destruction of the rainforest is an unintended consequence of other actions, such as the development of oil, mining, timber, and agricultural resources. In other instances, there has been a lack of understanding of the importance of the rainforest. For example, developing countries, especially those in the tropical rainforest areas, have enormous international debts that may have caused their governments to follow economic policies that contribute to rainforest destruction. In addition, some multinational companies have failed to implement policies to protect the rainforest as they strive to reduce costs and maximize profits.



a) Mining iron ore, Brazil; b) slash-and-burn agriculture on a rubber plantation, China. What short-term gains do developing countries achieve in allowing deforestation? What actions might encourage them to protect their rainforests?

Is There a Solution to the Problem?

Considering the ecological and economic value of the world's rainforests, there is little doubt that humanity is better off trying to conserve Earth's remaining rainforests. But how do we go about preserving biodiversity and unique places for future generations, without compromising the quality of life for present populations? This is the challenge we face.

THINK IT THROUGH

1. Explain why the destruction of rainforests is a problem we all need to address, regardless of where we live.
2. If your priority is economic development, what kind of program might you pursue with regard to the rainforest? If your priority is protection of the rainforest, how might actions you take affect the economy of the region? Is there any way to balance the two priorities? Explain.
3. What are some ways consumers, shareholders, and governments in North America might encourage companies operating in rainforests in other parts of the world to act responsibly with regard to the environment?