

Ask an Amazon Expert: Why we can't afford to lose the rain forest

By National Geographic, adapted by Newsela staff on 04.22.19

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Image 1. In this August 25, 2016 photo, a forest fire burns in Xingu Indigenous Park in Mato Grosso in Brazil's Amazon basin. The "tipping point for the Amazon system" is 20 to 25 percent deforestation, according to Carlos Nobre and Thomas Lovejoy, environmental scientists at George Mason University. If a quarter of the rainforest is cut down, they believe there won't be enough trees to sustain the rainfall, and a more pronounced dry season could turn more than half the rainforest into a tropical savannah. Photo by Vinicius Mendonca of Ibama, the Brazilian Environmental and Renewable Natural Resources Institute, via AP.

About one-fifth, or 20 percent, of the Amazon rain forest has disappeared in the past 50 years.

Forest has been lost due to farming, building cities and logging. The loss of forest harms the millions of different plants and animals that live in the Amazon River region. It also affects humans around the world.



Some of the world's best scientists are trying to save the rain forest. National Geographic explorer Dr. Thomas Lovejoy is one of those scientists. We talked to him about the Amazon and why it matters.

NG: You have worked in the Amazon for more than 50 years. How have you seen the region change?

TL: In the 1960s, there was only one highway in the entire Amazon region. That's an area as large as the continental United States, with one highway and 3 million people. Today, there are between 30 million and 40 million people and countless roads. About 20 percent of the forest has disappeared, too.

There has been progress, though. Today, there are many more national parks in the Amazon. More than 50 percent of the Amazon is protected in some way. The real challenge is how to plan and manage the Amazon.

When we talk about protection of the Amazon, it's hard for many people because they don't feel connected to the region. How can we change that?

It's true that we are far away. But our daily lives are very connected to the Amazon.

For example, a snake called the bushmaster lives in the Amazon. This snake kills its prey with a poison that causes the prey's heart to stop. Scientists studied this snake to develop medicine for our hearts. Today, millions of people use these medicines to treat high blood pressure. They now have longer and more productive lives. People have a nasty snake far away in the Amazon to thank for it.

Climate change affects everyone on the planet. It is happening in part because of the carbon dioxide in the atmosphere. Tropical forests trap a lot of carbon dioxide. The Amazon holds about half of the world's rain forests. Losing the Amazon would release that carbon dioxide and increase climate change.

The Amazon basically makes half of its own rainfall. Some of the rain from the Amazon travels south, which is really important for agriculture in Brazil and Argentina. Brazil is currently in a drought that might be the worst in its history. It is happening partly because the region is getting less rainfall from the Amazon.

What is your vision for the future of the Amazon?

There has been a lot of damage done and forest lost, but nothing is gone until it's gone.

We hope for the Amazon to return to be about 90 percent of what it was originally. We want it to be managed together by the eight Amazon nations: Brazil, Peru, Colombia, Venezuela, Ecuador, Bolivia, Guyana, Suriname, as well as French Guiana. We want to see the people in charge of transportation, energy, agriculture, and the other businesses in the region plan together. We think Amazon cities can have higher quality of life, too. That would keep people in cities, so there is less reason to cut down trees.

Fast Facts:

Carbon Contributor?

The Amazon is currently a carbon sink. That means it stores carbon dioxide that would otherwise lead to climate change. That might be changing, though. The World Wildlife Fund says that forest loss and reduced rainfall may someday cause the Amazon to release more carbon emissions than it captures.

The Birthplace Of Biodiversity

There is a reason that scientists working in the Amazon had to come up with a term to describe the incredible wealth of plants and animals present in the Amazon basin. The region is home to 1 in 10 types of animals known on Earth.

Quiz

1 Read the section "NG: You have worked in the Amazon for more than 50 years. How have you seen the region change?"

Which sentence from the section shows Dr. Thomas Lovejoy's point of view about saving the Amazon?

- (A) In the 1960s, there was only one highway in the entire Amazon region.
- (B) About 20 percent of the forest has disappeared, too.
- (C) Today, there are many more national parks in the Amazon.
- (D) The real challenge is how to plan and manage the Amazon.

2 Read the sentence from the section "Fast Facts."

The World Wildlife Fund says that forest loss and reduced rainfall may someday cause the Amazon to release more carbon emissions than it captures.

How would Lovejoy MOST LIKELY respond to this sentence?

- (A) It is not too late to stop that from happening in the rain forest.
- (B) Carbon emissions are already happening in the rain forest.
- (C) Forest and rainfall loss are not current risks for the rain forest.
- (D) No research supports this idea about the rain forest.

3 Read the section "When we talk about protection of the Amazon, it's hard for many people because they don't feel connected to the region. How can we change that?"

How does this section support Lovejoy's argument?

- (A) by stating that more people should visit the Amazon to see its beauty
- (B) by explaining that the Amazon has a big impact on the rest of the world
- (C) by describing the dangerous animals that keep people out of the Amazon
- (D) by arguing that Brazil is the country most affected by the Amazon

4 Read the selection from the section "What is your vision for the future of the Amazon?"

We want to see the people in charge of transportation, energy, agriculture, and the other businesses in the region plan together. We think Amazon cities can have higher quality of life, too. That would keep people in cities, so there is less reason to cut down trees.

How does this support Lovejoy's claim that the Amazon can still be saved?

- (A) It offers proof that agriculture should stay out of the rain forest.
- (B) It describes reasons that people like cities better than rain forests.
- (C) It provides evidence that businesses are leaving the Amazon.
- (D) It explains how countries can manage their use of the Amazon.

Answer Key

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