

# Deforestation in the amazon rainforest: literature review



**ASSIGN  
BUSTER**

Go back to your writing sample from week one. Remember that it should be written as though for a university assignment. This means adhering to a structure that includes an opening statement, development paragraphs, and a conclusion. It should be no longer than 500 words long.

Using Google Scholar or the search engine from your university library, search for five academic sources dealing with the same topic as the one you wrote about; these will have to be relevant to the points you want to make in your writing and support your argument or idea.

Include two short quotations and three paraphrases of significant parts of the academic sources you use to support your argument. Add appropriate in-text citations and a reference list, which shows the full records of the 5 cited sources, listed in alphabetical order. Ensure that all your referencing adheres to the Chicago 16th Author-Date system.

Deforestation in the Amazon Rainforest is having a devastating effect on the environment.

The Amazon Rainforest is the largest rainforest on Earth. Covering an area of five and a half million square kilometres, it is composed of a diversity of ecosystems forming the Amazon Basin that drains into the Amazon River.

Although deforestation can occur naturally through events such as droughts that cause many trees to die, human intervention is the most prolific cause.

Rising population levels within the Amazon basin have contributed to an escalation in deforestation of the rainforest. This is due to urbanisation and an increased demand for timber to be used in building and commercial production of items such as paper, furniture, and other products. For more information, see the following link:  
<https://assignbuster.com/deforestation-in-the-amazon-rainforest-literature-review/>

and palm oil.

Deforestation has a negative impact on the local environment of the Amazon. As the forest is removed the soil loses its anchor point and it is steadily eroded, most notably during the wet season. This contributes to the instability of the remaining trees and pollution of the waterways. The physical removal of the trees removes the habitats and food sources for many animal and insect species that live there. In turn this causes a reduction in diversity of the remaining species and a disruption in the ecosystem of the rainforest. (Lean and Warrilow 1989, 411-413).

A study was completed which involved simulating the deforestation of the Amazon rainforest, and replacing it with pastoral grazing lands. The results showed a climatic variation of a “weakened hydrological cycle, with less precipitation and evaporation and an increase in surface temperature.” (Lean and Warrilow 1989, 411-413).

The importance of the Amazon rainforest in global environmental issues is largely due to its immense size. Terrestrial plants absorb 25% of the atmospheric carbon dioxide during photosynthesis. Carbon dioxide emissions are a by-product of natural processes and human interventions such as burning fossil fuels. Through a process known as sequestering the plants store carbon in their wood and soil. The massive scale of the Amazon and its sequestering capabilities leads to it being referred to as a carbon sink: able to slow the accumulation of carbon dioxide in the atmosphere, and therefore its contribution to global warming. It can only be classified as this if it absorbs more carbon dioxide than it releases.

By 2015 the atmospheric concentration of carbon dioxide was 400 parts per million, this was an increase from the 290 parts per million level recorded at <https://assignbuster.com/deforestation-in-the-amazon-rainforest-literature-review/>

the turn of the century. (Keenan, Trevor, Colin Prentice, Josep Canadell, Christopher Williams, Han Wang, Michael Raupach and James Collatz 2016.)

The deforestation of the Amazon rainforest not only decreases the quantity of carbon able to be stored, it also causes a dramatic increase in the levels of carbon being released into the atmosphere by the dead trees. According to the Global Forest Resources Assessment, Main Report (2010), worldwide deforestation releases almost one billion tonnes of carbon into the atmosphere annually. Although measures are beginning to be implemented to reduce the levels of carbon released into the atmosphere, more needs to be done to prevent levels rising “ to 600 parts per million-a level the world could reach as early as 2050 [m1]” (Daniel Grossman 2016, 635).

Due to the sheer size of the Amazon rainforest, alterations to its local environment can be felt in other parts of the world. David Werth and Roni Avissar (2002) point out that deforestation in the Amazon has a measurable effect. It can cause a reduction in levels of precipitation and evapotranspiration as well as the formation of clouds. This impact could be felt in several areas around the world, that displayed an increase in the length of their dry seasons. Restoration of the tropical rainforest areas of extensive deforestation could be greatly inhibited due to this increase in temperature and dryness. (Shukra, Nobre and Sellers 1990, 1322-1325).

though the numbers are not as high as the ones recorded in the previous decade. Deforestation is the second largest anthropogenic (human-caused) source of carbon dioxide to the atmosphere. Brazil and Indonesia, which had

the highest net loss of forest in the 1990s, have significantly reduced their rate of loss, according

plays a crucial role in keeping carbon out of our atmosphere, as it naturally absorbs about 28% of the atmospheric carbon emitted by the burning of fossil fuels elsewhere

According to Michael Daley, associate professor of environmental science at Lasell College in Newton, Massachusetts, the No. 1 problem caused by deforestation is the impact on the global carbon cycle. Gas molecules that absorb thermal infrared radiation are called greenhouse gases. If greenhouse gases are in large enough quantity, they can force climate change, according to Daley. While oxygen ( $O_2$ ) is the second most abundant gas in our atmosphere, it does not absorb thermal infrared radiation, as greenhouse gases do. Carbon dioxide ( $CO_2$ ) is the most prevalent greenhouse gas. In 2012,  $CO_2$  accounted for about 82 percent of all U. S. greenhouse gas, according to the Environmental Protection Agency (EPA). Trees can help, though. 300 billion tons of carbon, 40 times the annual greenhouse gas emissions from fossil fuels, is stored in trees, according to Greenpeace.

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[m1]