

"the weather cases.  
without the help of

[Business](#), [Industries](#)



" The impacts go way beyond the tropics – the United Kingdom and Hawaii could see an increase in rainfall, while the US Midwest and Southern France could see a decline," said Professor Lawrence, of the University of Virginia. In this new age of technology and advances in every possible field of study, many people forget about the environment. Some will just throw their trash all over the place with no concern for the possible consequences.

Of course, there are many consequences, but only one truly affects the nearby organisms which is habitat destruction. Between 80, 000 and 316, 000 square kilometers are lost every year from the need for transportation extension, agricultural expansion, hardwood harvest, and infrastructure expansion in rainforests and nearby ecosystems. Habitat destruction in rainforests are a real issue that needs to be addressed, it is caused by human activities which could easily be prevented or slowed down. Not only has the average temperature of Earth risen, but as have sea levels and extreme weather cases. Without the help of rainforests, different areas of the world may experience heavy rainfall that could end in disastrous floods and landslides while others can go without seeing rain for months. Deforestation and habitat destruction of rainforests in West Africa or the Congo could reduce rainfall across the region by 40-50% while clearing 40% of the Amazon Basin which decreases wet-season rainfall by 12%, and dry-season rainfall by 21% (Morello, 2012). Complete destruction of the Amazon Basin would likely reduce rainfall in the Midwest, Northwest and parts of Southern USA and Canada during the agricultural season. The combination of human activities, such as land clearing for agriculture and logging, and climate change increases the drying effect of dead trees that fuels forests fires.

Studies done in Rondônia, Brazil indicate that the wet season has been delayed by 11 days in deforested regions while it has not changed in forested areas over the last 30 years. In addition, it is estimated that trees in tropical rainforests lower the temperature by 3.6 (-15.

8 celsius) to 6.3 (-14.63 celsius) degrees Fahrenheit (Michael G., 2001). All things considered, models suggest that by the year 2050, temperatures in the Amazon will increase by 2–3°C.

Along with the increasing weather changes, habitat destruction is also playing a huge role in the disappearances of different animal species that reside in rainforests. An average of 137 different species of plants and animals are pushed to extinction every day from habitat destruction, which is nearly 50 thousand each year. Rainforests provide habitat to over 30 million species of plants and animals, most of which are endangered or critically endangered. One being the Sumatran Tiger which inhabits the Sumatra Islands in Indonesia. In the wild, in fact, this is the only place in the world in which this subspecies of tiger can be found. The Sumatran Tigers numbers are depleting at a steady rate due to illegal hunting and the ever-increasing problem of deforestation. As the forests are destroyed by man for palm oil and hardwood harvesting, the natural habitat of the tiger and its prey disappears, causing them to die out steadily. With the decreasing population of Sumatran Tigers, Indian Wild Dogs, also known as Dholes, are also facing a decline.

Due to the rapidly expanding infrastructure of cities and towns and depletion of their prey base, the Dhole only exists in numbers around 2000 to 2500,

making it one of the most endangered species within Asian wildlife. Along with the endangered Sumatran Tigers and Dholes, the Mountain Gorilla has made it's way onto the critically endangered animals list. Due to detrimental human activity, such as poaching, civil war, and habitat destruction, the Mountain Gorilla has become the most endangered type of gorilla. There are less than 1000 remaining in the wild, which currently inhabit in three countries spanning four national parks—Bwindi Impenetrable National Park, Mgahinga Gorilla National Park, Volcanoes National Park, and Virunga National Park.

With the ever growing population, more and more species and subspecies of plants, animals, and insects lose more of their natural habitat that lead to extinction. As the rainforests disappear, so do many possible cures for fatal or life-threatening diseases. Currently, over 150 prescription drugs sold worldwide come from plant-derived sources in rainforests. Over 1. 2 billion people in the world rely on the rainforest for their survival, directly or indirectly, whether it is for food or building supplies. Additionally, more than 25% of our modern medicines derived from rainforest plants (Fraser, 2008).

Even so, we humans have only learned how to use 1% of these plants. At least 80% of the developed world's diet originated in rainforests, and many foods we consume today such as oranges, avocados, coffee, and spices, as well as industrial resources such as hardwood, rubber, resins and fibers, were originally found in tropical rainforests. Without rainforests, the world today would be drastically different and would not be able to experience these resources. Rainforest destruction has become an issue of great

international concern. The immediate causes of it are clear no matter who looks at them, and the fact that the unstable agricultural and infrastructural practices and hardwood harvesting techniques are going unnoticed by most of the consumers needs to be reevaluated.

One of the biggest causes of all this habitat loss in rainforests is timber logging for infrastructure expansion or shipped to the US and Canada. The timber industry attempts to defend itself by saying that this method of selective logging ensures that the forest re-grows naturally in time, and is once again ready for their ' safe' logging practices, although selective cutting can be just as harmful as clear-cutting. Removing a fallen tree from can even further the harm done, especially when it is carried out recklessly. The tracks made by heavy logging machinery, as well as the clearings left behind by loggers, are sites of severe soil disruption, which begin to erode in extreme weather.

Sustainable logging, while possible, has met hostility from the timber industry for its lack of efficiency and yields compared to traditional harvesting methods, and it still remains controversial among conservationists as to its impact on the environment. It is believed that in many South-East Asian countries between 45-74% of trees that remain after logging have been significantly damaged or destroyed (WWF, n. d.). The lives and life support systems of indigenous people are disturbed as is the habitat of hundreds of birds and animals. With 7. 6 billion people inhabiting earth, it's no surprise that one of the other leading causes of habitat destruction in rainforests around the globe includes infrastructure expansion and

urbanization. With the population increasing at the rate it currently has been, the deforestation of the rainforests will occur much quicker than it has been.

With the rapidly increasing need for more space, people are needing to find more room to expand their roads and cities, which starts to invade the nearby ecosystems such as rainforests. This is a major problem because the issues that come along with urbanization will push themselves into what is left of the surrounding rainforest. Fragmentation due to infrastructure expansion is a problem because when species lose their forest homes, they are often unable to subsist in the small fragments of forested land left behind. This is due to the fact it restricts breeding and gene flow and results in long-term population decline. Furthermore, this leads to loss of biodiversity, increases in invasive plants, pests, and pathogens, and reduction in water quality. Undisturbed rainforest areas are being cleared to provide land for feed crops, or for grazing cattle (Colchester & Lohmann, n. d.

). A lot of produce grown is sold to more developed countries and in a lot of situations, crops are grown for export while the local population goes hungry. Modern equipment, fertilizers, and pesticides are used to maximize yields while having detrimental effects on the environment. The land is farmed and tilled excessively, as well as damage from cattle to the land is to such an extent that it is no use to cattle ranchers, moving on to destroy more parts of the rainforest that has already been cleared or has been untouched. Now, not only have the forests been demolished but the land is used, cleared of nutrients and left infertile, and unable sustain any form of life.

There is no attempt at sustainable agricultural practices because the only thing that matters is to make quick money and high crop yields, with very little concern to no concern about the environmental damage that they are inflicting. Due to the sensitivity of rainforest soil and the destructive manner of present-day operations, the productivity of cash crops grown on rainforest soils decreases rapidly after a few years. Following the causes, there are a few solutions to counteract the problem of rainforest loss which includes sustainable development programs, practicing sustainable agriculture, and the restoration of forests and nearby ecosystems. Though a large replanting effort would help to ease the problems that deforestation caused, it would not solve them all. It would aid in reducing the buildup of carbon in the atmosphere, but it would not bring back the many different species from extinction.

Rainforests, and forests in general, cannot absorb all of the carbon dioxide humans are releasing into to the atmosphere by burning of fossil fuels. Research has shown that the restoration of entire ecosystems is possible in areas where parts of the original forest still remain and there are few human population pressures (Aerts & Honnay, 2011). Restoration of rainforests would improve the effect that has been made on the Earth but it wouldn't necessarily solve the problem of habitat loss. It would most likely cost too much and there wouldn't be enough people to plant trees to do it. Additionally, it has been brought up that it fails to generate enough economic benefits for conserving the forest. Rainforests will continue to survive as working ecosystems if they can be shown to provide positive economic benefits.

Conservation attempts and sustainable practice programs are not going to be cost-free, even countries that already get funding aid from other countries and donors have trouble effectively making such programs work in the long run. But if regulations and regular evaluations are in place then it shouldn't be a major issue. If funding is provided, it could be used to expand protected areas and if protected areas can be developed in such a manner to create a source of income for local communities, an increased number of parks should create more economic benefits for a larger portion of the population as well. It could also be used to increase surveillance and patrol in protected areas to protect endangered wildlife, initiate programs that promote sustainable practices, and build research facilities for local scientists and guides to educate and further their knowledge of improving crop yields, protecting endangered species, and promoting further education of sustainable practices. Programs that promote sustainable use are very important to raising the standard of living for people living in rainforests. However, not all members of a community will see direct benefits from employment in the service or production immediately, if at all, and many people will still rely on traditional use of the natural resources around them whether they receive proper education or not. A sustainable approach to better agriculture practices is important to making sure rainforests stay protected, if local farmers are taught better ways to address their problems then it would reduce the need to cut down more forests when the soil has been leached of all nutrients.

A better approach to addressing the needs of the rural may be by improving existing agricultural projects while promoting alternative techniques, more



notably permaculture, which is imitating or directly utilizing patterns and features found in natural ecosystems (Ross, 2005). Permaculture adds a mixture of different crops to the farmer's rotation that both enables the farm to increase their income and enhance degraded soils by restoring lost nutrients. An added benefit of it is that they are to maintain forest systems, soils, and biological diversity at a far higher level than standard agricultural approaches. With the benefits of permaculture, an added bonus is that it is not very expensive, and would cost a lot less than traditional cultivation techniques in the long run. To turn 2000 acres into an eco-friendly permaculture farm would cost an average of \$3600, which is not a lot if funding help could be placed. It would also help the local economy by implementing jobs that could be filled by the locals.

Protecting rainforests should be just as important as any other ecological issue that people are facing, they play a huge role on earth and there are severe consequences if the problems are not solved or at least slowed down. There are many different solutions that could be implemented but so far there has been none. And although the counteracting solutions are important, it is believed that humans have pushed it past the point of fixing, and that may be true but it is crucial that some sort of solution is placed in the meantime.

“ The cost of our success is the exhaustion of natural resources, leading to energy crises, climate change, pollution, and the destruction of our habitat. If you exhaust natural resources, there will be nothing left for your children. If we continue in the same direction, humankind is headed for some frightful ordeals, if not extinction.” – Christian de Duve.