



4-27-2020

## Nature's Wake Up Call

Angelica Escobar



# Nature's Wake Up Call

How Deforestation Contributes to Pandemics



Angelica Escobar

Apr 27 · 5 min read



PHOTOGRAPH BY ERALDO PERES, AP IMAGES  
ENVIRONMENT

**T**he Amazon rainforest is burning, the trees are on fire and smoke is rising.

A study by the National Aeronautics and Space Administration (NASA), shows

that nearly 60 percent of the rainforest has been burned to charcoal, forcing millions of species out of their natural habitats. When this happens, species move into areas shared with humans, including cities and towns, increasing human and animal contact and the potential for spreading disease.

The decimation of forests also takes away the shade that blocks the sun ray's during the day and helps hold the heat in at night — trees serve as our natural climate controllers. They also play a critical role in absorbing the greenhouse gases that fuel global warming. Fewer forests means greater amounts of greenhouse gases entering the atmosphere, increasing the speed and severity of global warming. The rise of average global temperatures has led to hotter springs and summers, increased drought and the decline of ecosystems.

Deforestation has many consequences — one of the most relevant today is how it contributes to pandemics. As the world clears more trees and habitats, we cross paths with more animals, increasing the opportunity for pathogens that were once contained in forests to get into new, human hosts.



. . .

Global warming-induced fires and clear cutting for grazing and agriculture are adding to the decimation of habitats in the Amazon and some parts of Africa and Southeast Asia. Many healthcare experts are fearful that our next consequential pandemic will derive from burning forests. According to NASA, more than 93,000 fires have lit up the Amazon, a 60-percent increase from 2018 and the highest number since 2010. The recent fires in the Amazon are reportedly more intense than in past years.

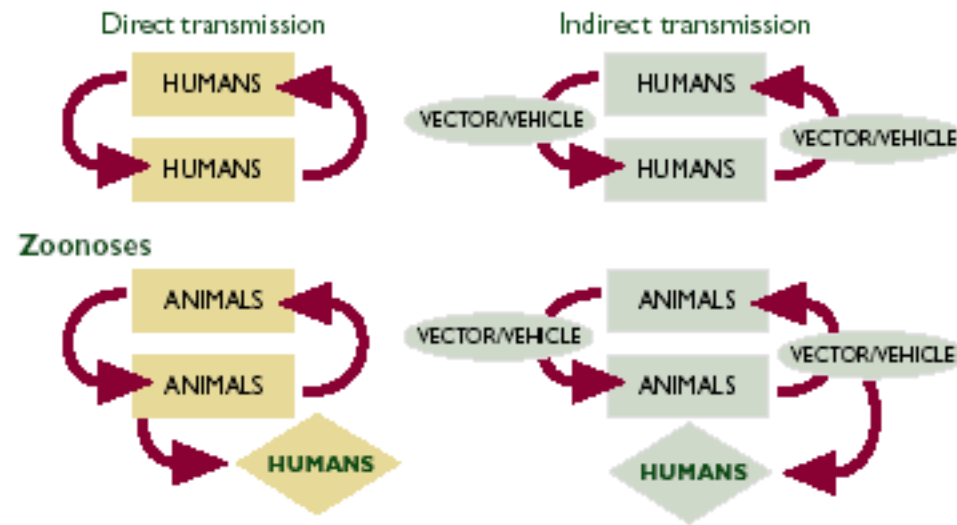
This is critical because some 80 percent of the world's documented species can be found in the world's tropical rainforests, according to a study by the World Wide Fund for Nature. The fires cause the species that inhabit the forests to flee into humans environments and bring with them diseases usually confined by their natural habitats. For example, the Nipah virus started after forest fires in Indonesia caused the trees there to stop producing fruit for the indigenous fruit bats. The bats migrated to Malaysia, carrying a deadly disease with them that killed 105 people and infected 265, according the CDC.

This is only one example of the many infectious diseases that have been transferred to humans by forests shrinking by clearing-cutting, fires, and development. The hypothesis for how the coronavirus originated is through contact with live bats at the Wuhan “wet” animal market in 2019, according to scientists at department of microbiology at Melbourne's Monash University.

Zoonosis is an infectious disease that is transmitted between animals and humans, which is caused by viruses, bacteria, parasita and fungi according to the Rainforest Alliance. Global warming is forcing species to change their behavior, including disease-causing organisms. The situation we are in now with the Coronavirus pandemic is an illustration of what happens when we put too much stress on our environment.



## Anthroponoses



World Health Organization



CNN.com

Don't blame bats for coronavirus pandemic, blame humans.

. . .

**T**rees absorb carbon dioxide, but deforestation has allowed more carbon to escape into the atmosphere while also increasing human contact with species and pathogens forced out of their habits. At the same time we've been losing forests — the

earth's lungs — we've also been increasing carbon emissions. The world produces up to 36 billion tonnes of carbon emissions and that number is going up each year, according to [Our World In Data](#). This is causing global temperatures to increase at an alarming rate. The warming earth is causing animals to migrate towards cooler areas, which causes cross contamination between species and helps pathogens get into new hosts.

Dr. Aaron Bernstein, Director of Harvard C-CHANGE, [explains in an article posted by the Harvard School of Public Health](#), that deforestation through climate change and human incursion brings disease-carrying species into contact with livestock farms, creating a source for spillover of infections. Less demand for animal products could decrease emerging infectious disease risk and lower greenhouse gas emissions. If we carry on cutting down the main tool we have to diminish CO2 build up — trees — we can expect the climate of our planet to change dramatically over the next decades.



Forest burning outside of the municipality of Labrea in the northwest Brazilian Amazon  
Marcos Colon

Not to mention, once we cut down forests, they are hard to restore. As my stepfather, Brian Henriquez, who works for the fire department in Camp Pendleton, put it, “The long lasting effects of forest fires are bad. The amount of time in order for the forest to regrow can take years, and it still wouldn’t be the same.”

The consequences aren’t limited to spreading disease to human, but also in species loss. In the past 20 years according to One Green Planet, the world has lost over 50,000 orangutans because of a 90 percent habitat that has left them without food sources.

The decimation of natural habitats and ecosystems for agriculture, live-animal markets, industrial development and housing all impact biodiversity, which makes it so much easier for pathogens to be transmitted from wildlife to people. Anger Andersen, executive director of the United Nations Environment Programme, says, “We are intimately interconnected with nature, whether we like it or not. If we don’t take care of nature, we can’t take care of ourselves. And as we hurtle towards a population of 10 billion people on this planet, we need to go into this future armed with nature as our strongest ally.”

The Coronavirus pandemic is a wake up call for the whole world, but it has also slowed down the human footprint and nature has shown its resiliency these past couple of months as skies get clearer across the globe. The questions is, where do we go from here?