

Seeing the Forest for the Trees: Population Growth and Deforestation

“The ultimate driving force behind all deforestation is human overpopulation; both the population in the temperate region that places demands on the resources derived from the tropical rainforests, and the expanding population of developing tropical nations, who exploit the rainforest for survival.”

—Rhett A. Butler, founder of Mongabay

The last agricultural frontier of Guatemala, Petén is the largest of 22 national regions or *departamentos*. Petén has grown from 21,000 inhabitants in 1960 to more than 600,000 today, reaching a growth rate of 10% per year in the 1990s. Approximately two-thirds of that growth was due to the influx of domestic immigrants who fled violence from a bloody civil war. They responded to the government’s call for people to take advantage of the region so rich in natural resources. The remaining third was due to extremely high fertility.

Only later, in 1989, once communities were established and half of Petén’s forests were bare did certain areas within the region become protected, relegating dwellers to illegal squatters. A relocation effort was successful in moving only 10% of those inhabitants outside the new Mayan Biosphere Reserve, so the vast majority remains and is impossibly difficult to reach with consumer goods, infrastructure, and health services, including family planning. David Carr, professor of geography at UC Santa Barbara, forecasts that at the current rate of destruction, Petén’s forests will be gone by 2015.

Causes of Deforestation

More than 80% of the world’s old-growth forests have been destroyed, taking with them the habitats of countless species. Each year, humans cut down an additional 38 million acres of original rain forest, although that figure has been slowly shrinking in recent years due to local

and international forest conservation efforts.

The destruction of forests in its most severe form leads to the desertification of vulnerable land. Where forests once stood, dirt and sand spread out for miles, creating virtual dead zones where most life cannot survive. According to the UN, over 250 million people are directly affected by desertification. One billion people in over one hundred countries are at risk.

People cut down or burn forests for a variety of reasons, most of them survival-related. Although the relationship between deforestation, harmful policies, poverty, and population growth is complicated, the fact remains that more people place more demands on existing forests.

While it may not be possible to prevent poor people from using the resources they have on hand, it is possible to reduce some of the stress that population growth places on natural resources through vol-

untary family planning. Many conservation groups have found that the people they work with in high-biodiversity and high-growth communities desperately want family planning. When these organizations partner with reproductive health NGOs, progress in conservation is accelerated and health indicators improve.

Charcoal Production

In many less developed parts of the world, wood is the only available fuel. Haiti and the Democratic Republic of the Congo (DRC) have made recent news headlines for illegal charcoal production using wood from protected forests. Virunga National Park is located in DRC and small sections of Uganda and Rwanda. The park is home to approximately 81 mountain gorillas. The greater region encompassed by these three countries is home to the entire global mountain goril-



A charcoal vendor waits for customers in the “Lasaline” slum of Port-au-Prince, Haiti. Haitians cut trees to make charcoal for fuel, causing the deforestation of Haiti. Photo: Thony Belizaire/AFP/Getty Images

Facts and Figures

- About 38 million acres of original rain forest are cut down each year.
- Only about half of the original tropical humid forest remains—much of the clearing was done in the last 50 years.
- More than 4,600 square miles of the Amazon was deforested last year.
- One-fifth of global carbon emissions come from the destruction of forests (mostly tropical).
- The U.S. State Department estimates that forests four times the size of Switzerland are lost each year because of clearing and degradation.
- Forests contain over 60% of the world's biodiversity.
- Forests cover about 30% of the earth's land area.



A desertified area in Eritrea. Photo: Arsiema Berhane, Courtesy of Photoshare

la population of 720. This close relative is seriously threatened by our insatiable demand for the trees they call home.

Charcoal made from Virunga National Park trees is a critical commodity for survival and also represents one of only few livelihoods in the region. In fact, charcoal production is a \$15 million industry.

FAO Senior Officer, Alain Marcoux, wrote in 2000, “The impact of population growth on fuelwood consumption is direct, since energy needs are essentially proportional to population size.”

Crops and Grazing

Food needs drive much of the slash and burn deforestation in developing countries. Rural residents clear land for crops and for livestock grazing. Cattle ranching is actually the leading cause of deforestation in the Brazilian Amazon, much of which is export-driven.

As cropland is depleted of nutrients through overuse, new land must be cleared to provide fertile farmland to feed rural residents and export to urban centers. According to Marcoux, “Clearly, population growth is a major determinant of land clearing in shifting cultivation, through the growth in requirements for

food and other agricultural products. Demand for cultivable land, fuelwood and other forest products, for the needs of a growing agricultural population. This demand is clearly population-driven—and, as we have seen, it often is the predominant factor of deforestation.”

Commercial Logging

In the Brazilian Amazon village of Tailândia, sawmills are beginning to reopen. One year after a government crackdown halted operations, locals are taking their chances again at illegal logging. Between 70% and 95% of the residents are dependent on the income generated from logging so the threat of persecution is worth the employment. Those that lost their jobs when the sawmills closed have been relegated to beggars for the past year.

Eleven million acres of forest per year are cut for commercial purposes. As the largest importer of wood products, the United States plays a large role in the illegal logging conundrum. And the larger the population of consumers grows here, the more demands will be placed on international forests.

The Next Fifty Years...

Editors of the scientific textbook, *Sustaining Life*, Eric Chivian and Aaron Bernstein, clearly see the role of human population growth in deforestation trends. “The [Millennium Ecosystem] assessment concluded that human activity has disrupted natural ecosystems more extensively in the past fifty years than in the entire course of human history, as large areas on all continents have been converted to farmland, forests have been felled for timber and to make way for pasture and the growing of crops, and the seas have been plundered for fish and other marine products.”

Chivian and Bernstein cite population growth several times throughout the book as one factor in the accelerated destruction of tropical forests. Slowing population growth can help make the next fifty years less damaging and can also help families secure alternative, financially and environmentally sustainable livelihoods.

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Population Connection is America's largest grassroots group advocating for progressive action to stabilize world population at a level that can be sustained by the Earth's resources.