

FACTS FOR YOUR FILES

RAIN FORESTS



Global Forest Loss

To understand the issue of rain forest destruction we have to look at the big picture, i.e. total forest destruction. According to current estimates, on an annual basis, 0.38 percent of the world's forests were converted to other land uses during the 1990s. To partially offset this loss, large areas reverted to forest during this same time leaving a net deficit of 0.22 percent per year.¹ The world's temperate-zone forests are actually expanding due to reforestation by affluent countries and reduced losses caused from fires and pests. The rate of tropical forest loss was 0.8 percent, with the greatest losses occurring in Africa and South America, though the greatest rate of loss occurred in Asia.¹ Since 1990 the rate of loss has been decreasing.

America had its own surge of tree-clearing in the late 19th century. We cut huge tracts of Eastern forest to fuel small pig-iron smelters. After the advent of coal-fired steel furnaces, virtually all of the forest was allowed to regrow. According to 1996 government statistics, we actually have 14 million more acres of forest land than we did in 1920.²

Causes of Forest Destruction

Severe forest fires were responsible for significant forest destruction in the late 1990s. Among the primary man-made causes of world forest loss have been the need for wood, especially firewood,³ along with home-building, land for food crops, and the existence of trade barriers. In addition, many nations have felt it important to populate their frontiers.

The Need for Wood

Fortunately, there is no need to lose more rain forests just because we have more people and need more wood. We can now use the techniques pioneered for high-yield farming to achieve high-yield forestry. Tree plantations will further reduce rain forest destruction as the world is beginning to produce the forest products it needs from a few high-yield acres. Therefore, most of our forests can be left untouched. (A Georgia yellow pine plantation can produce 15 times as much wood as a Swedish natural forest.)⁴ The Food and Agriculture Organization of the United Nations reported a gain of 4.7 million acres of tree plantations in the tropics each year during the 1990's.¹

The Need for Food

The world has no need to clear more forests for food. High-yield farming has tripled the yields of most crops since the 1950s.⁵ We are currently feeding a better diet to twice as many people from the same cropped area we used 40 years ago.⁶ Biotechnology promises to accelerate the momentum in breeding still higher-yielding seeds. However, large population increases in the developing world will strain resources and the development of new technologies is vital to boost agricultural productivity.

The development of acid-tolerant crop varieties is an example of recent technological advances. These new varieties can now produce good crops from the southern hemisphere's one billion acres of acid savannas. These savannas, covered with brush and grass, have little biodiversity, and could be far more productive in agriculture than the rain forests that are so rich in species. Unfortunately, depressed economics in some countries have failed to provide enough off-farm jobs. Too many discouraged families have turned, instead, to the harsh life of rain forest subsistence farming. In this case, the problem is not food but a lack of economic growth.

Much of the rain forest acreage converted to agriculture becomes unproductive after three or four years because of the loss of nutrients in the soil. Though some of this acreage remains abandoned, shifting cultivation turns some land into managed forest fallows. The official numbers reporting the balance between forest acres lost and gained miss these additions to the total forest acreage.¹ Also missing in the statistics are the millions of trees outside forests that are planted and tended each year by rural inhabitants.¹

In contrast to efforts to meet agricultural needs, the unsustainable, often illegal, hunting of wild animals for meat and other products in tropical forests is an alarming issue. Data studies support the concern that wildlife is being drastically reduced, especially in Africa, thus threatening the ecological integrity of the rain forest.¹

Trade Barriers

Freer trade in farm products could help protect rain forests. Farm trade may in fact be the most critical policy to save the environment. Present international

trade rules favor national food self-sufficiency. The problem is that the world's farming resources are not well distributed for the needs of the 21st century. Asia in 2050 will be nine times as densely populated as North America.⁷ Moreover, Asia has already developed a much larger proportion of its agricultural potential than the rest of the world. This is a major reason why Asia is losing its tropical forests at a much higher rate than Latin America or Africa.

Expansion of Frontiers

This phenomenon is why the press has linked rain forest destruction to beef production. In the 1970s, Brazil's military government offered a subsidy to help "populate its frontiers" for national security. Because of this ill-advised Brazilian government subsidy, part of the Amazon rain forest was cleared for farmland in the 1970s and 1980s.⁸ However, because grasses grown on rain forest soil make such poor cattle pasture, the subsidy was paid on only 1.5 percent of the Amazon's rain forest area over a period of 16 years. When the subsidy ended, the rate of deforestation in the Amazon slowed. Unfortunately, population growth and the need for modernization exert pressure on the Brazilian government to allow infrastructure improvements which may result in continued deforestation.

In places like Central America, cattle are being raised on land that formerly supported rain forests. Virtually all of this land was cleared for crops, but then was unable to support cropping. The already-cleared land

was converted to pasture for cattle grazing. The rain forests were not cut to satisfy the beef requirements of Americans.

The Future of Rain Forests

The current rate of deforestation in rain forests is difficult to assess though satellite technology should provide more reliable data. The underlying causes for tropical deforestation are related to the economic development of third world countries. Affluence and technology have the potential to reverse the

deforestation trend. As countries increase their wealth, they become concerned about loss of natural resources including plant and animal wildlife. As technology use becomes more widespread the world over, high-yield agriculture and forestry will allow the use of less and less land to produce more and more food and forest products.

High-yield technologies have already tripled the

world's crop yields once, and they should be able to provide ample food and wood for an expected world population of 10 to 12 billion in the future. We should need less land for food and forestry in 2050 than we need today.

If most of the increased world population live in cities which will take up less than 4 percent of the land area, while high-yielding farms, ranches and tree plantations leave more undisturbed wildlife habitat than we have today, then the world can have both people and wildlife.

U.S. Beef Consumption and Deforestation

There is no relationship between United States beef consumption and tropical deforestation; less than one percent of the total 2001 U.S. beef supply was imported from "rain forest countries" (South and Central America).² It is not necessary for cattle to graze deforested tropical land to meet the needs of American consumers. Furthermore, the largest fast-food chains in the United States have long had policies against buying beef from rain forest countries.

References

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