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Amazon Burning

(1010 words & 5 references)

In 1997, more of the world burned than in any year in recorded history. Why? The biggest and most catastrophic fires were in tropical countries, such as Brazil, Indonesia, and Mexico. The 1997 El Niño drought certainly played a role, but there is much more to the story.

Historically, major wildfires have occurred only rarely in tropical rainforests. Today, however, once-remote frontiers are in desperate retreat, and fire is often the reason. Loggers rip holes in the forest canopy, allowing hot winds to dry the forest and increase flammability. Ranchers and slash-and-burn farmers routinely use fire for forest clearing. In 1997, a satellite detected nearly 45,000 separate fires in the Amazon Basin alone¹.

Recent studies have revealed just how pervasive fire has become in the Amazon. In Brazil, deforestation is mapped using Landsat satellite images, but a 1999 study demonstrated that ground-fires and logging, which are invisible to Landsat, are damaging thousands of square kilometers of forest each year, in addition to the vast areas being deforested². Another study this year showed just how insidious are ground-fires: although consuming only leaf-litter, they kill many trees and increase canopy openings and woody debris, making the forest far more vulnerable to devastating wildfires in the future³.

Despite initiatives to reduce deforestation, in 1998 the rate of forest loss in the Brazilian Amazon rose by nearly 30% over the preceding year--not including the extensive areas degraded by ground-fires, logging, or habitat fragmentation. Why are the initiatives not working? Why is the Amazon still burning at a breakneck pace?

At the outset, it is important to emphasize that Amazonian conservation is an uphill battle¹. The population of the Brazilian Amazon has increased ten-fold in the past 30 years, and dozens of new highways, powerlines, and infrastructure projects are dissecting the heart of the basin. From 1988 onwards, much control over Amazonian resources was shifted from the Brazilian federal government to state and municipal authorities, many of which were poorly qualified to meet this challenge and are far more prone than the federal government to local development pressures. In addition, Amazonian nations have traditionally viewed the basin as a source of immediate wealth,

and have often regarded foreign initiatives to promote forest conservation with suspicion and ambivalence.

Several international and domestic programs have the potential to improve Amazonian conservation, but all face daunting challenges. Because of weak enforcement, for example, illegal logging and forest clearing are rampant in the Amazon. Stronger environmental legislation was recently enacted in Brazil¹, but its implementation has been thwarted by executive decrees and congressional vacillation that have rendered it largely impotent. Despite such hindrances, Brazil's national environment agency, IBAMA, is now enlisting the help of the army to patrol the Amazon for illegal activities.

The most important international initiative is the Pilot Program to Conserve the Brazilian Rainforest⁴, which is funded by G-7 countries and administered by the World Bank. The Pilot Program is attempting to funnel nearly \$350 million from Germany, the European Community, Britain, and other industrial nations into conservation projects in Amazonia and Brazil's Atlantic coastal forest. Brazil had initially requested far greater funding, about \$1.5 billion, but contributions from the U.S. and Japan, in particular, have been appallingly small relative to the size of their economies.

The Pilot Program embodies many good ideas. Its projects encompass land-use planning, extractive and Amerindian reserves, ecological corridor systems, applied research, and capacity-building for local governments, among others. The program has been particularly successful in fostering the creation of new non-governmental organizations in the Amazon, many of which are oriented toward sustainable development. The demarcation of 22 million hectares of Amerindian reserves is also a major achievement⁴.

The Pilot Program faces major obstacles, however. Because of serious bureaucratic hurdles--both from Brazil and the donor nations--only a fraction of the program's funds have actually been spent. Moreover, Brazil very nearly scuttled the entire program earlier this year, when it not only withdrew its own contributions (which total about a tenth of the program's budget) but refused to accept the "free" conservation funds offered by the donor nations. The Brazilian government later reversed this remarkably ill-conceived decision--under intense international and domestic pressure--but its wavering support for Amazonian conservation has raised serious concerns in many quarters.

While some Brazilian agencies and individuals are striving to promote conservation goals, others are working towards opposite ends. One major concern is that Brazil's limited conservation initiatives are being dwarfed by its unofficial policy of accelerated Amazonian development. Massive investments, on the order of \$40 billion over the next eight years, are planned to support gas lines, road development, railroads, and other major infrastructure projects in the region⁵. Key environmental agencies, such as the Ministry of the Environment, are being largely excluded from the planning of these developments. Such activities could easily defeat current efforts to slow forest destruction.

The Amazon faces many other challenges--both from within and without. Because of increasing trade liberalization, multinational corporations are becoming much more active in the Amazon, while international markets for forest products are

increasing. North American, Asian, and European firms have major interests in Amazonian timber, oil, mining, and infrastructure projects, and in some instances are pressuring governments to relax already-limited environmental regulations. In Colombia, for example, a recent presidential decree that threatens to weaken environmental regulations for mineral, logging, and hydroelectric projects was apparently initiated to appease multinational corporations.

If there is any reason for optimism, it is that local support for conservation seems to be growing in the Amazon. Today there are about 350 indigenous and environmental groups in Brazil. These grassroots organizations provide hope for the future, but there is not the slightest room for complacency. For without far greater international and domestic commitment, vast expanses of the Amazon will continue to burn each year.

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