12-8-2005

# Rethinking The Region's Deforestation

LADB Staff

LADB Latin America Data Base
News & Educational Services

NotiCen

**LADB Article Id:** 51873
**ISSN:** 1089-1560

# Rethinking The Region's Deforestation

*by LADB Staff*
*Category/Department:* Central America
*Published:* 2005-12-08

Central American and other environmentalists who have been claiming that deforestation is on the increase and that it accounts for increases in the severity of weather-borne disasters may be barking up the wrong tree. At least two recent studies contradict the common wisdom on this environmental issue and question the data supporting the premise that floods are worsened by deforestation.

In October, for instance, El Salvador suffered catastrophic damage and a number of deaths after heavy rains from Hurricane Stan flooded parts of the country and caused mudslides (see NotiCen, 2005-10-06). President Antonio Saca said at the time that "65% of the country is in danger of landslides." Typical of the international reporting of the disaster was this from The Independent in London: "The immediate cause of the flooding was the torrential rainfall that has lashed the region for the last few days. But the disaster that has killed at least 39 was, to all intents and purposes, man-made. Much of El Salvador's tree cover has been removed, leaving the country vulnerable to flash flooding. Only an estimated 2% of the tree cover that existed before the 10-year civil war remains."

A newly published study, Globalization, Forest Resurgence, and Environmental Politics in El Salvador, disputes that. The study, by Susanna B. Hecht of the School of Public Affairs Institute of the Environment at UCLA and Susan Kendal of the Programa de Investigacion Sobre El Medio Ambiente in El Salvador (PRISMA), calls the assertion "faulty" that only 2% of El Salvador's forests remain. The study says this view is the outcome of "1) extrapolating deforestation trends from earlier periods whose dynamics no longer hold given the enormous social and economic changes of the last decades; 2) ignoring the widespread anthropogenic and regenerating woodlands that are significant in their total area, and in their ecological and social impacts; 3) a lack of awareness of processes that now encourage forest recuperation."

The point is acknowledged that deforestation continues throughout Latin America but that there is also a strong countertrend of forest resurgence. The study describes El Salvador as a country of 2 million hectares, with a mosaic of successional, anthropogenic, and natural forest fragments. The term natural is highly qualified given the long history of disturbance going back to pre-Colombian times. These remnant forests cover about 30,000-40,000 ha, although they bear evidence of more recent disturbance from grazing, timber extraction, etc. Another 25,000 ha are covered by coastal forest, mostly mangrove, and 24 protected areas add 28,000 ha more. At least half of El Salvador could be classified as secondary forest of various ages, though most of this is classified as pasture with different degrees of woody vegetation.

Most of these are in various stages of succession or are diverse silvo-pastoral systems. The main cause of succession has been the diminution of cattle grazing caused first by the war and later by cattle rustling and low beef prices brought about by beef imports from Honduras. About 100,000

LADB Article Id: 51873
ISSN: 1089-1560

ha of forest in addition to that described is domestic forest. This includes living fences, tenure demarcations, large urban forests, dooryard agroforest, and advanced pasture succession. Added to the count are 5,000 ha of forest plantations, 35,000 ha of commercial orchards and coconut plantations, and coffee forests covering about 170,000 ha.

Some of these classifications would give ecologists pause, but the report argues that environmentalists' preference for "natural" or old-growth forest is fraught with historical exceptions and largely represents their own cultural biases. Moreover, these kinds of forest are effective in sustaining the diversity of the country's wildlife species.

Contrary to another widespread belief, these species have not shown decline. "Indeed," say the authors, "the recent research on coffee ecosystems reveals that they are often more diverse than local old growth fragments." They refer to these areas as the secret forests of El Salvador. Satellites show more trees Images from the Moderate Resolution Imaging Spectroradiometer (MODIS) and Advanced Very High Resolution Radiometer (AVHRR) show a dramatic increase in forest cover between 1992 and 2000.

Open areas with less than 10% tree cover declined during the period from 7% to less than 1% of the national territory. Areas with less than 25% tree cover decreased from 28% to 6.5%. But the largest gains came from areas that range from 26% to 55% tree cover. There, woodlands increased from 48.2% to more than 62%. Relatively dense forests, greater than 41%, now cover 59.2% of the landscape, reflecting recuperation of conifer, dry forests, and anthropogenic forests of which roughly half are dense forest types, those with 71%-100% cover. The densest category increased by 3.4%.

The cause of this recovery, says the report, reflects:

The impact of the civil war that profoundly affected rural zones. Although it caused its own environmental degradation, the war halted agricultural expansion, the main cause of forest destruction, and set into motion demographic shifts.

The outcomes of economic globalization. The sharp decline of commodity prices rice, beans, coffee led to important declines in rural production and natural-resource use.

Structural-adjustment politics. Structural-adjustment programs put into place with the Peace Accords reduced subsidies that encouraged corrupt agricultural expansion policies. Increased foreign commodity imports removed inefficient producers from the scene, impoverishing many, but nevertheless slowing environmental encroachments.

Democratization and decentralization. While contributing to rural impoverishment, decentralization also allowed for "the development of new local political arenas where an emerging environmental language and approaches to rural development could evolve, largely through NGOs and civil organizations." As a result, rural areas became less producers of crops and more suppliers of environmental services.

LADB Article Id: 51873
ISSN: 1089-1560

The rise of an array of new environmental ideologies and programs.

*As postwar El Salvador became known as an environmental ruin, international funding organizations created a sustainable-development bandwagon, civil society jumped aboard, giving rise to socioambiental initiatives. These included collective environmental protection such as fire control, regional forest management, watershed councils, and the like. Mancomunidades sprung up, associations of adjacent municipalities, that could better manage resources. The study challenges some well-established notions about the effects of war, international migration, and free-trade agreements on the environment. It also challenges "some of the long held Malthusian ideas about population and resource degradation, a rethinking that is overdue, and one that can only be understood in light of larger scale structural changes in economies." It argues for the viability of the managed matrix, the ecosystems around and between conservation zones, as opposed to schemes that emphasize large parks and preserves, which are becoming less of a conservation option. These preserves have also been shown to fail at the goal of providing sustainable habitat. FAO study concurs The study does not contend that the three major flood and mudslide events in less than a year-and-a-half in the region could not be blamed on deforestation. But another, by the UN Food and Agriculture Organization (FAO), does say that blaming deforestation is a mistake that can only lead to the wrong kind of preventive policies. This study looks at the effects of Stan in Guatemala (see NotiCen, 2005-10-13), El Salvador, Mexico (see SourceMex, 2005-11-02), Costa Rica, Nicaragua, and Honduras. It also examines the effects of the intense rains in May 2004 that killed thousands of Haitians and Dominicans on the island of Hispaniola. Blaming deforestation is almost irresistible in Haiti (see NotiCen, 2004-07-22), where more than 10 million trees are cut down annually for charcoal, the only source of fuel for most of the population. Even major reforestation projects like the USAID planting of 60 million trees has not kept up with the loss of tree cover. It is also hard to resist the idea in Guatemala, where forest disappeared*

LADB Article Id: 51873
ISSN: 1089-1560

*at the rate of 54,000 ha annually during the 1990s, reducing the country's total forested area to 26%. But the October 2005 report, Forests and Floods: Drowning in Fiction or Thriving on Facts, refutes this, asserting instead that "government decision-makers, international aid groups, and the media are often quick to blame flooding on deforestation caused by small farmers and loggers. The conclusion is not only wrong, scientifically, but such misguided views have in the past prompted governments to make life harder for poor farmers by driving them off their lands and away from the forests, while doing nothing to prevent future flooding." This study was co-authored by the Center for International Forestry Research (CIFR). Director-general of CIFR David Kaimowitz supports planting trees and protecting forests, but said, "If deforestation was causing floods, you would expect a rise in major flood events paralleling the rise in deforestation, but that is not the case. The frequency of major flooding events has remained the same over the last 120 years going back to the days when lush forests were abundant." The problem, according to the study, is that forests have limited influence on flooding in large-scale events. They can reduce runoff through filtration and storage capacity, but only in small-scale occurrences. Once soil becomes saturated, the water runs off along the surface. The land degradation and erosion associated with loss of tree cover are not generally the result of forest removal, but rather of the poor land-use practices that follow the removal. Erosion also results from soil compaction caused by logging operations. The FAO also found that floods occur toward the end of the rainy season, when soils are saturated and incapable of holding additional water. Flooding is not on the increase, either. Available data shows cycles within which major flooding tends to occur at fairly regular intervals. These cycles tend to be determined by climatic patterns associated with cyclical changes in ocean currents. Faulty criteria lead to misperception The perception of increasing frequency and severity of flooding is colored by the fact that the impact tends to be measured by economic losses rather than by physical parameters.*

LADB Article Id: 51873
ISSN: 1089-1560

*"This approach can easily give the impression that flooding has become much more severe in recent times. In reality, the huge economic losses attributed to flooding in recent years are mainly a reflection of expanding economic growth, increased investment in infrastructure, and rapidly growing floodplain populations," said the FAO report. The result is that floods that might have gone unnoticed previously are now major disasters because of what and who got in the way of them. The experience of the Dominican Republic in the May 2004 floods is illustrative of this. There, vulnerability to flash floods had been increased by building whole towns on dry riverbeds. Jimini, where 414 people are known to have died and more than 1,000 disappeared, is close to a watercourse that last experienced a flood in 1921, in a 15,000-ha valley that lies partially in Haiti. There is however, a less direct link between deforestation and rainfall. The National Aeronautics and Space Administration (NASA) announced in September 2005 that deforestation in different areas of the world affects rainfall over a large region. As an example, deforestation in the Amazonian region of South America influences rainfall from Mexico to Texas and the Gulf of Mexico. This conclusion was based on a simulation done by researchers at Duke University using the NASA General Circulation Computer Model and Global Precipitation Climatology Project. The finding awaits reproduction using other computer models. A summary of the available data was provided by Pal Singh of the World Agroforestry Center. He said, "We need to stop blaming people who live and work in and around forests for floods that affect entire river basins, and instead consider the effect of a wide variety of land-use issues, which can in some instances include poor logging techniques. Policymakers and development agencies have a moral and ethical responsibility to pursue solutions that are rooted in the best available science."*

-- End --