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## Fires in the Amazon too

Analysis of NOAA satellite data indicates that burning in the Brazilian Amazon increased 28% between 1996 and 1997. The average number of fires per day increased from 466 to 599. The actual increase for the year may be even greater, since 1997 is drier than 1996 and burning continues. Analysis of the NOAA-12 data under-counts the actual number of fires, so the situation is in reality worse.

The most recent deforestation analyses, released last year, showed that forest clearing had risen about 34% between 1991 and 1994, reaching 14,896 square kilometers a year. Even if the number of fires is not a direct measure of new deforestation (old cattle pasture and secondary forest is also typically burned every year) increased burning strongly suggests that deforestation rates continue to rise. Burning in areas not previously cleared is a good indication of new deforestation. Increased burning in past years has in fact presaged increased deforestation. The variations in annual deforestation rates since the end of the 1980s are in part explained by economic cycles. As Brazil's economic stabilization plan takes hold and growth picks up, most observers expect increased loss of forests. Equally important is that since 1989, Brazil's environmental agency (IBAMA) has had no statutory authority to enforce environmental legislation. A recent Brazilian national security agency (SAE) report on forestry policy concluded that 80% of the timber produced in the Amazon is extracted illegally.

Researchers at the Institute of People and the Environment in the Amazon (IMAZON) have shown that current fire use practices act synergistically with selective logging in the region to promote fire. Amazonian forest fires take place under the tree canopy and may not be detected by current satellite methods. IMAZON estimates that for every hectare of forest that is cut down and burns, at least one more hectare burns beneath the canopy. Mortality of trees subjected to even light fires can be 40%-50%. Once burned, a forest is much more likely to burn again in subsequent years. Among other consequences these recurrent forest fires have been shown to reduce living biomass in the forest and to increase carbon emissions.

Source: Stephan Schwartzman. Environmental Defense Fund September 23, 1997