

# LBA

Experimento de Grande Escala  
da Biosfera-Atmosfera na Amazônia

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## ABSTRACT

DEFORESTATION CONTROL IN MATO GROSSO: A NEW MODEL FOR SLOWING THE LOSS OF AMAZONIAN FOREST. Philip M. Fearnside, Coordenação de Pesquisas em Ecologia, Instituto Nacional de Pesquisas da Amazonia (INPA), C.P. 478, CEP 69011-970 Manaus, Amazonas. e-mail [pmfearn@inpa.gov.br](mailto:pmfearn@inpa.gov.br)

Controlling deforestation in Brazil's Amazon region has long been illusive despite repeated efforts of government authorities to slow the process. Now, a licensing and enforcement program in the state of Mato Grosso appears to be having a significant effect. Clearing rates of Amazonian forest and of the "transition" between forest and cerrado (central Brazilian savanna) have declined since the program began in 1999, while deforestation in the rest of Brazil's nine-state "Legal Amazon" region has continued to increase. However, due to exhaustion of uncleared land without steep slopes or other impediments to agriculture in some parts of Mato Grosso, the clearing rate in this state was already declining since before the program began. The decline of clearing rates in forest and transition areas steepened after the program began, especially in the transition area where enforcement has been concentrated. Examination of trends at the county (município) level help separate the effects of frontier aging and repression. In new frontiers, clearing rates were increasing before the enforcement program, but decline sharply after 1999. Clearing rates decline more sharply where enforcement is concentrated. Disturbing evidence of clearing in some indigenous reserves indicates the urgency of developing mechanisms to reward environmental services as an alternative form of development. The assumption that deforestation in Amazonia is uncontrollable is at the root of Brazil's traditional resistance to international monetary flows to reward avoided deforestation, as through the Kyoto Protocol. The recent events in Mato Grosso indicate that this assumption is flawed, and that deforestation can be controlled.