Convincing evidence of tropical forest decline

In a recent issue of PNAS, Grainger (1) claimed that the evidence for decline of global tropical forests is “unclear” and that it is difficult to demonstrate that it is happening “convincingly using available tropical forest area data.” We agree with most of the article, yet we feel these statements overstate the uncertainty about tropical deforestation. His assessment is based only on the national-level data in the 2005 Forest Resources Assessment, yet data from other studies designed to estimate global rates all show convincing evidence for decline in the area of tropical forests.

Two studies estimated that deforestation was from 5.6 to 9.2 million hectares per year in the 1990s for the global tropics (2, 3), and another one estimated that it was 4.9 ± 1.3 million hectares per year for the global humid tropics (4). All three are based on satellite observations and represent convincing evidence for declining tropical forest area during the 1990s.

Many national studies show large areas of forest loss. Data from Brazil and Indonesia—the two countries with the highest rates—alone are enough to demonstrate that tropical forest decline has continued since 2000. The deforestation rate

in the Brazilian Amazon ranged from 1.8 to 2.7 million hectares per year since 2000 (5). That for Indonesia averaged 0.7 million hectares per year since 2000 (6). These published data provide convincing evidence for decline in tropical forest cover.

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