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The Impacts of Selective Logging: Questionable Conclusions

Authors: Sist, Plinio, Gourlet-Fleury , Sylvie, and Putz, Francis E.

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Environment division of the Council for Scientific and Industrial Research, in Stellenbosch, and with the Department of Conservation Ecology and Entomology at the University of Stellenbosch, both in South Africa. Stephen Polasky is affiliated with the Department of Applied Economics and with the Department of Ecology, Evolution, and Behavior at the University of Minnesota, in St. Paul. Heather Tallis is affiliated with the Natural Capital Project, at the Woods Institute for the Environment, at Stanford University, in Stanford, California. Harold A. Mooney is affiliated with the Department of Biological Sciences, at Stanford University, in Stanford, California. Anne Larigauderie is affiliated with DIVERSITAS, at the Muséum National d'Histoire Naturelle, in Paris, France.

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The Impacts of Selective Logging: Questionable Conclusions

In their article in *BioScience*, Zimmerman and Kormos (2012) analyzed the impacts of industrial selective logging on tropical forests and concluded that it causes degradation—but that many small-scale community and private-landowner forest management systems lead to the protection of reasonably intact tropical forest ecosystems. Both conclusions can be questioned on the basis of recent publications. In particular, a new study published in *Conservation Letters* that reviewed more than 100 scientific papers concluded that 76% of the standing carbon and 85%–100% of the biodiversity was maintained in once-logged forests (Putz et al. 2012). The authors argued that logged forests should not be considered as degraded lands and therefore eligible for conversion into plantations or pasture but, rather, as lands with high conservation value. Moreover, improvement of forest management practices could further increase the conservation value of logged forests while maintaining their economic value (Sist et al. 2008).

Although small-scale forest management operations are generally considered less damaging than industrial logging, these systems are very diverse, and generalizations are dangerous. In many tropical regions, and particularly in the Brazilian Amazon, so-called "small-scale" forestry implemented by rural populations is in constant evolution; in many cases, rural populations implement mechanized industrial logging through partnerships with logging companies (Sist et al. 2011, Humphries et al. 2012). There is no reason why these forest management practices should better preserve the forest ecosystem than does the industrial selective logging that is ongoing in large concessions, especially where implementation of management plans represents a noteworthy step toward sustainability. There is therefore an alternative approach in which conservationists, governments, and local communities can work with logging companies to implement sustainable forest management practices that protect biodiversity and provide local communities with real economic benefits. Given that selectively logged forests retain substantial biodiversity, carbon, and timber stocks, we believe that improvements in forest management practices must be encouraged and are now likely if synergies are enhanced among initiatives to retain forest carbon stocks (e.g., REDD+ [Reducing Emissions from Deforestation and Forest Degradation]), assure the legality of forest products, certify responsible management, and devolve control over forests to empowered local communities.

PLINIO SIST
SYLVIE GOURLET-FLEURY
FRANCIS E. PUTZ
Plinio Sist (sist@cirad.fr) and Sylvie Gourlet-Fleury are affiliated with CIRAD's (Centre de Coopération Internationale en Recherche Agronomique pour le Développement) Environments and Societies Department's Research Unit for the Goods and Services of Tropical Forest Ecosystems (Biens et Services des Ecosystèmes Forestiers Tropicaux), at the Campus International in Baillarguet, Montpellier, France. Francis E. Putz is with the Department of Biology at the University of Florida, in Gainesville.

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Industrial Logging Should Be Discouraged: A Response to Sist and Colleagues

The scientific studies we review in our paper (Zimmerman and Kormos 2012) conclude unanimously that logging in tropical forests under presently mandated protocols leads to depletion of high-value timber stocks, thereby setting logged forests on a globally well documented course to clearing as land value shifts from timber to agriculture. We agree with Sist and colleagues (2011) that near-sustainable logging of natural forests is technically feasible, albeit only with substantial financial subsidy. We also agree that logged forest supports more biodiversity than cattle pasture or oil palm. We diverge, however, in our opinion on what should be done with this information to achieve the objective of conserving the world's highly threatened tropical forests.

Putz and colleagues (2012) maintain that if best practices were implemented

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