

HOW TROPICAL FOREST SCIENTISTS CAN CONTRIBUTE TO CONSERVATION

PUTZ, Francis E. "Jack", Biology and Forestry, University of Florida, PO Box 118526, Gainesville, FL 32641, USA

e-mail: fep@ufl.edu

If scientists are to improve the fates of tropical forests, they need to pay greater attention to the diverse drivers of deforestation and degradation while they explore ways to enhance the potential synergies between conservation interventions in place and planned. Among the on-going and related interventions are certification of natural forest management operations, assurance of the legality of marketed forest products, and climate change mitigation. The success of all of these interventions depends on improvements in governance by state and non-state actors. These improvements are emerging from unprecedented levels of involvement in open global and local discussions of tropical forest issues by a diversity of often newly empowered stakeholders including representatives of civil society and government, environmental groups, scientists, forestry firms, and the retailers and purchasers of forest products. Continued disregard of this diversity of stakeholders and the overall complex contexts in which tropical forest conservation happens or fails to happen, as exemplified by advocates of complete protection ("fortress preservation") as the only viable and acceptable conservation strategy, damages the mixed-portfolio approach needed to maximize the overall efficiency, effectiveness, and equity of conservation interventions.

Despite the obvious resilience of the tradition of natural resource misuse by forest industries, the obvious alignment of potentially synergistic local, national, and international conservation endeavours provides hope that tropical forestry is finally primed for rapid improvement. One pillar supporting this hope is devolution of control over forest lands to indigenous groups and other rural communities that, coupled with increased transparency of decision-making, reduces deforestation and forest degradation and promotes sound, multiple-objective forest management. Also helping to motivate responsible forest management is recognition by some governments that they are failing to capture substantial forest rents due to corruption and inefficiency in their ranks. In response, they are stepping up law enforcement efforts to the point of penalizing perpetrators. Improvements in remote-sensing techniques are also helping them to detect and curb illegal logging. Working in conjunction with these national and subnational efforts to improve governance, international programs designed to control the trade in illegal timber are advancing, which benefits silviculture by making responsible forest management more financially attractive. Legality assurance facilitates an aligned step towards responsible management, international, voluntary, third-party certification of forest management operations. From management certification it is a small step towards verification of the substantial short and long-term carbon benefits of improved forest management. If the carbon connection is made, funds for reduced emissions of atmospheric heat-trapping gases could be used to reduce the

direct and indirect costs of certification until markets expand for certified products and green premia increase. Forest scientists can contribute to the realization of the conservation benefits of these and other potential synergies if they focus on solving the real world problems confronted by the various responsible actors.

While many environmentalists are justifiably leery of making further investments in improving tropical forest management, in light of the resilience and biodiversity of even ruthlessly exploited tropical forests contrasted with the environmentally bleak alternatives of plantations and pastures, such improvements remain critical. To reveal how conservation interventions that seek to improve forest management should be designed to avoid the pitfalls exposed by earlier efforts (e.g., the Tropical Forestry Action Plan), well-informed theory of change models are needed. In this talk, a generic theory of change model is described that captures the actors and actions needed to improve forest management by promoting carbon retention (i.e., reduced forest degradation). To illustrate the complicated and complex nature of this and related conservation interventions, the seemingly simple example is developed of a chainsaw operator in a timber concession in Borneo who needs to decide whether to fell a tree that he suspects to be hollow. This example is of general relevance insofar as interventions designed to mitigate climate change, certify responsible forest management practices, or assure the legality of forest products all need to influence this and related decisions. These sorts of shared needs provide clear motivation for communication and collaboration among forest workers, managers, auditors, certifiers, policy-makers, and researchers.