

PUBLIC RELEASE: 29-JAN-2018

Getting to zero deforestation

Stanford-led synthesis paper reveals strengths and weaknesses of corporate environmental pledges; prescribes solutions to boost effectiveness

STANFORD UNIVERSITY



IMAGE: THIS IS DEFORESTATION IN AUSTRALIA'S TOOLANGI PARK. [view more >](#)

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When the world's largest fast food company announced in 2015 that it planned to use only cage-free eggs, poultry farmers scrambled to meet the new standards. So, can we expect zero-deforestation pledges by McDonald's and other influential companies to slow environmental degradation? A Stanford-led study examines why these otherwise remarkable and promising industry pledges often fall short of meaningful impact, and suggests a range of public-private policy solutions.

"The time is ripe to increase the scope and impact of zero-deforestation commitments by transnational companies, said study lead author Eric Lambin, the George and Setsuko Ishiyama Provostial Professor in Stanford's School of Earth, Energy & Environmental Sciences. "They align with a growing availability of monitoring data from satellites and other sources as well as a proliferation of national and international public policies aimed at conserving forests to reduce greenhouse gas emissions."

Potential and pitfalls

Responding to increased expectations from consumers and pressure from environmental organizations, among other motivations, hundreds of corporations have made public promises to help end deforestation. The paper, published in *Nature Climate Change*, details why some promises hold more water than others.

For example, many companies have publicly stated goals for specific commodities or regions, or across entire supply chains. But these pledges are often hobbled by vague language and wide variation across sectors, according to the researchers.

Similarly, company codes of conduct describe specific actions designed to reduce deforestation from operations and supply chains. This could include requiring sourcing from approved suppliers who meet pre-defined sustainability principles or auditing suppliers' operations against social and environmental requirements. Empirical research on the effectiveness of these codes of conduct is scarce, due to the often-proprietary nature of such information and to limited disclosure about implementation progress.

Some companies have banded together to make collective public pledges. In striving to achieve transformation across broad swaths of the economy or planet, these goals fall outside of the direct control of any individual participant, and they rarely specify who is accountable or how they will be implemented. As a result, action tends to lag. The study's coauthors point to previous research showing less than 50 percent implementation of sustainability pledges among companies in the Sustainability Consortium, whose members include General Mills, Mars and Wal-Mart.

Regardless of a private zero-deforestation initiative's approach, it can be undermined by a range of external factors. For example, when an intervention restricts the production of commodities in one place, it can encourage displacement of production to other locations, such as when ranchers move their cattle from a ranch with deforestation to one free of clearing to "launder" cattle. Unclear business cases, high compliance

costs and legal certification requirements can lower adoption rates, increase market consolidation, push small companies out of business and criminalize small-scale producers.

A way forward

The study's coauthors lay out several policy approaches to making zero-deforestation initiatives more effective, equitable, tailored to local contexts and verifiable on an ongoing basis. Policymakers can complement better, more comprehensive regulation by endorsing and reinforcing company standards, sharing related information with companies and covering compliance costs for small producers, among other efforts.

"These companies stand poised to break the link between commodity production and deforestation," said coauthor Holly Gibbs, an associate professor of geography environmental studies at the University of Wisconsin-Madison. "To do that, more immediate action is needed to demonstrate commitment to change and to clear the haze surrounding these efforts."

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Lambin is a senior fellow at the Stanford Woods Institute for the Environment. Tannis Thorlakson, a graduate student in the Emmett Interdisciplinary Program in Environment and Resources of Stanford's School of Earth, Energy & Environmental Sciences, was also a coauthor on the paper.

The study, "The role of supply-chain initiatives in reducing deforestation," includes additional coauthors from the University of Wisconsin; the University of California, Santa Barbara; the University of Hawai'i; the Gordon and Betty Moore Foundation; Boston University; McGill University; the University of Oxford; the World Wildlife Fund; the University of Colorado Boulder; the Center for International Forestry Research; Climate Focus; and the National Wildlife Federation.

Funding for this research provided by the Gordon and Betty Moore Foundation.

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