Union of Concerned Scientists

TROPICAL FORESTS AND CLIMATE

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Deforestation Today: It's Just Business

The causes of tropical deforestation have changed in the twenty-first century, which has required changes in the policies necessary to protect tropical forests. For many years, tropical deforestation was attributed largely to growing numbers of subsistence farmers moving into forests and cutting trees down to plant food crops such as corn, beans, and cassava. But several recent scientific studies show that large commercial agricultural and timber enterprises—not subsistence farmers—are the principal agents of tropical deforestation, which is responsible for about 15 percent of global warming pollution worldwide.

Preserving forests is therefore not at odds with the needs of poor farmers. This new understanding should guide what we do to protect tropical forests and prevent catastrophic climate change—for example, by changing the practices of the industries now responsible for most tropical deforestation.

The New Drivers of Deforestation

Recent studies based on detailed satellite photographs, on-the-ground data collection, and sophisticated statistical analyses prove that most tropical deforestation is now driven by the expansion of large cattle ranches, commercial soybean production, oil palm plantations, and in some cases timber cutting.[1,2] In the Amazon, for example, cattle ranching is responsi ble for the majority of deforestation, with the growth of large-scale soybean farming (mostly for livestock feed) running second.[3] Both have expanded so much that Brazil is now the world's largest exporter of both beef and soybeans.

In Indonesia and Malaysia, rain forests are being replaced by oil palm plantations that produce a vegetable oil used in thousands of processed foods as well as biodiesel production.[4] This is particularly damaging to Earth's climate because many of the rain forest soils in Indonesia and Malaysia are rich in high-carbon peat that has accumulated over thousands of years. Clearing and burning these forests releases enormous amounts of carbon dioxide into the atmosphere from both the trees and the peat soils beneath them.

Deforestation today is mostly "enterprise-driven"—that is, carried out by businesses looking to put land into commercial production for urban and export markets.[2] This pattern stands in sharp contrast to earlier decades, when forest destruction tended to be "state-driven," with governments encouraging the colonization of tropical forest regions by small farmers.

The businesses clearing tropical forests today are attracted less by the available timber—in fact, they often burn the wood or leave it to rot, producing carbon emissions—than by the low cost of land that deforestation makes available. This cheap land, in turn, makes it possible to produce goods at low cost for sale to faraway consumers.

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In Service of Distant Markets

Thus, the concern that tropical forests are being cut down by poor farmers simply trying to feed their families—and the resulting argument that slowing or stopping deforestation would hurt peasant communities—is by and large out of sync with twenty-first-century realities. Instead, the by-products of deforestation are most likely feeding better-off consumers in cities, both in developing countries and in the United States, Europe, and Japan. This is implicit in the fact that deforestation rates increase along with urban population growth and agricultural exports, but not with rural population growth.[5]

As more and more of the world's people are moving to cities, their diets are changing as well. Urban residents consume more animal products and processed foods. This means that despite the projected decline in urban population growth rates in coming decades, demand for meat, dairy products, and vegetable oils will continue to grow. Consumers of both the developed and developing world will continue to demand products that can be produced cheaply by cutting down tropical forests—unless policies and incentives are put in place

that keep forests standing and produce food in a more sustainable fashion.

What Can Be Done?

These new forces driving deforestation have important implications for the policy approach known as REDD+—reducing emissions from deforestation and forest degradation (plus related pro-forest activities). The basic idea is to compensate tropical countries that reduce their emissions of heat-trapping gases by slowing deforestation. By creating a financial incentive to preserve and restore forests, REDD+ relieves the economic pressures driving deforestation. This approach, as implemented by Brazil and Norway through the Amazon Fund, has already helped reduce deforestation rates in the Amazon dramatically.[6]

Large-scale soybean production on land cleared from tropical rain forest in Brazil

Economic incentives combined with political activism offer a powerful lever for promoting development without deforestation.

The benefits of ending deforestation—for the climate, for biodiversity, for forest peoples, and for sustainable development—are widely recognized. But protecting tropical forests will require overcoming the long-held assumption about the rural poor that we now know is based on false premises.

One might think that it would be more difficult to stop deforestation driven by powerful businesses than by poor farmers, but recent campaigns show that is not always the case. Businesses, although they have abundant economic and political resources, can be extremely sensitive to campaigns that link them to environmental destruction. In 2009, for example, two reports on the connection between cattle ranching and Amazon deforestation led to quick action by ranchers, banks, slaughterhouses, and grocery chains to stop producing and buying beef from deforested lands, as well as a continuing moratorium on the export of deforestation-connected soybeans.[7] Focused political pressure by environmental and consumer groups, as well as governments, could have a major impact on the industries now responsible for most tropical deforestation.[3]

Financial incentives created by REDD+ can also change business practices. The success of "payments for environmental services" in such countries as Costa Rica and Mexico[8] and the work of Brazilian ranchers and nongovernmental organizations to develop sustainable agriculture standards[9] show how this can be done. Economic incentives combined with political activism offer a powerful lever for promoting development without deforestation.

As deforestation driven by businesses is stopped, the final task of reducing deforestation to zero will become more complex, requiring incentives for small farmers. But at least we now understand that we are not choosing between protecting forests and feeding poor farmers. Deforestation is largely a business proposition, driven by the demands of far-off consumers.

REDD+ is a win-win, capable of preserving forests while protecting local livelihoods. In doing so, it can make a major contribution to avoiding catastrophic climate change and simultaneously promote sustainable development in the developing world.

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Endnotes

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