

ENVIRONMENTAL ECONOMICS

Inequality fuels forest loss

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Credit: Ricardo Beliel/Brazil Photos/LightRocket via Getty Images

Latin America holds a large proportion of the world's remaining forests. It also has one of the fastest deforestation rates, driven largely by the expansion of agricultural lands, which could be influenced by high levels of economic inequality. However, case studies from individual countries have provided conflicting evidence about the impact of inequality on land expansion.

A paper by M. Graziano Ceddia, of the University of Bern, collected panel data from 10 Latin American countries between 1990 and 2010 to test the dynamic associations between inequality and agricultural expansion. A suite of statistical models reveal that, under conditions of perfect equality, increasing agricultural productivity results in an initial moderate land expansion, followed by an overall effect of land sparing. If the rates of income, wealth and land inequality increase, however, the longer-term effect is expansion of agricultural lands. Income inequality appears to have an especially strong influence.

Several potential mechanisms may explain this link. High inequality may reduce farmers' incentives and/or ability to cooperate on land-sparing initiatives, it may erode the power of political institutions or it may result in restricted local land access, forcing expansion. In any case, this work suggests that introducing policies that equalize access to land, wealth and income may reduce the alarming pace of deforestation in Latin America.

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