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Institutional, social and economic factors behind deforestation: a cross-country examination

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The emphasis on pure economic explanations for economic development has recently shifted to cultural, social and institutional factors. An ordinary least squares (OLS) regression equation is used to examine the relationship between deforestation and economic, institutional and social capital variables for 117 countries. Institutional, economic and social capital variables are significantly related to deforestation, although there is no evidence to support the existence of an environmental Kuznets relation. While the results cannot be used to discuss any one country specifically, they do provide insight into the general roles of social and institutional factors in deforestation.

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Cattle ranching in the Amazon rainforest

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Since the 1960s, the cattle herd of the Amazon Basin has increased from 5 million to more than 70-80 million heads. Around 15% of the Amazon forest has been replaced and around 80% of the deforested areas have been covered by pastures (approximately 900 000 km²). Cattle expansion occurs in the new agricultural frontier areas of the "Arc of deforestation", from the Eastern Brazilian Amazon (States of Maranhão and Pará), through the Southern Brazilian Amazon (States of Tocantins, Mato Grosso and Rondônia) and the Bolivian rainforests, to the Andean Amazon ecosystems of Bolivia, Peru, Ecuador, Colombia and Venezuela. Based on 1990s data from different agricultural frontiers of the Amazon basin, the authors try to identify the main factors responsible for cattle expansion. Whereas some promising and sustainable land-use alternatives are emerging in some regions, adequate solutions to avoid or minimize the negative ecological impact of Amazon basin development still have to be found.