

Project *brief*

Thünen Institute of International Forestry and Forest Economics

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Which factors are associated with illegal logging?

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- **First cross-national quantitative study.**
- **Above all, the level of economic development and the institutional set-up of a country have an influence on illegal logging.**
- **Armed conflicts and population pressure, on the other hand, are less important.**
- **Results of the study are also of interest for existing policies to combat illegal logging.**

Background and aim

Illegal logging is a global problem that can have serious negative environmental, social and economic impacts, such as deforestation, degradation of biodiversity and loss of government revenues. Although the scientific literature on this topic is extensive, little systematic research has been devoted to analyzing the causes of illegal logging. Most of the information available in the literature on possible causes is based on anecdotal evidence (e.g. from context-specific stakeholder interviews). The aim of this project is to identify factors associated with illegal logging on a global scale across countries.

Methodology

The study is based on a logistic regression model, with which one can examine the relationship between illegal logging activities in 163 countries and appropriate physical-geographic, economic and institutional explanatory variables. The country-specific illegal logging rates are from a comprehensive study conducted by Seneca Creek Associates in 2004. The other data were taken from the literature or publicly available databases (e.g. FAO, World Bank).

Important results

The results of the regression analysis confirm some assumptions about the causes of illegal logging that have been widely accepted in the literature, but also provide new insights into this topic.

In general, it appears that the level of economic development and the institutional set-up of a country are of particular importance for the presence of illegal logging activities. For example, higher levels of economic development (measured as gross domestic product per capita), higher levels of rule of law, more developed democratic institutions and higher levels of corruption control are significantly associated with lower levels of illegal logging. In contrast, country size, population pressure, degree of political stability and presence of armed conflicts do not significantly influence the presence of illegal logging. This is also true for the extent to which a country is integrated into the international timber trade. This result thus indirectly supports recent findings that the majority of illegally harvested timber is consumed in domestic markets and does not enter international trade.

Conclusions

By its very nature, illegal logging is difficult to detect and little concrete data are available. In this context, the study points to factors that make the presence of illegal logging activities in a country more likely than elsewhere. Furthermore, the results of this study are also of interest for existing policies to combat illegal logging. For example, the identified factors could be used to assess the degree of risk of the country of origin – a procedure which is required in the due diligence practice of operators (i.e. importers of timber and forest products) under the European Union Timber Regulation.

Further information

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