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Project *brief*

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Can regional land use management policies reduce deforestation in Zambia?

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- **Regional forest transition stages are related to different household-level drivers of deforestation in the Miombo woodlands.**
- **Depending on the context, crop productivity has a mixed impact on the probability of high deforestation, while higher non-farm income is linked to lower deforestation.**
- **The findings suggest that regional-specific land use and forest policies are better suited to address deforestation, challenging design and implementation of current international and national policies.**

Background and aims

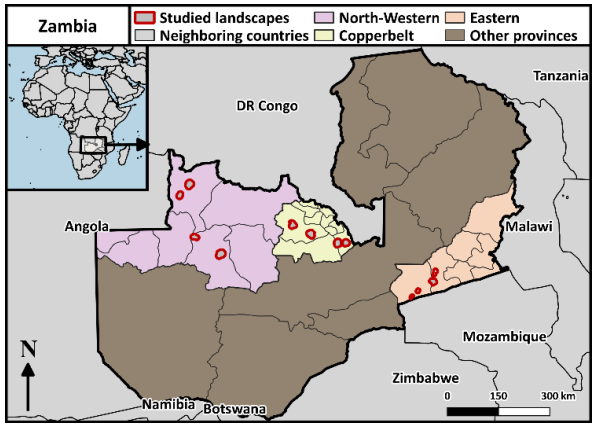
Although global deforestation rates have continuously declined over the past decades, they remain high for tropical and subtropical dry forests, especially in Africa. For instance, forest loss increased drastically after 2010 in Zambia, a country with a relatively high forest cover located in the Miombo woodlands of Southern Africa. Despite large regional differences, forest resources contribute between 33–65% of rural household income in Zambia. This study integrates remotely sensed data with surveys of 1,123 households collected across twelve forested landscapes and three Provinces in Zambia (Map 1). The authors explore the regional differences in spatial deforestation patterns and their relation to households' attributes and agricultural land use.

Key findings

The study highlights that the causes of deforestation at household-level vary across the three provinces. For instance, household size and access to markets play a notable role in the *North-Western* Province. In contrast, better education and higher forest income are more relevant drivers in the *Copperbelt* and *Eastern* Provinces. Furthermore, deforestation patterns substantially vary across regions. In early and mid-forest transition regions, high deforestation occurs closer to settlements, whereas in the region with advanced forest transition, deforestation patterns are reversed. The results reveal that crop productivity has a mixed impact (context-specific) on the probability of high deforestation, while higher non-farm income is linked to lower deforestation.

Advice for policymakers

The results suggest that land use and forest management policies should have a regional focus to address deforestation efficiently in Zambia. For instance, while encouraging reforestation and agroforestry approaches might work for *Copperbelt* and *Eastern* Provinces, strengthening non-farm income options to reduce forest dependency might be better suited to *North-Western* Province.



Map 1. Location of the studied landscapes.

Source: Thünen Institute, adapted from Kazungu et al. (2021).

Further Information

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