

# Assessing the role of agricultural trade in driving biodiversity loss from tropical deforestation

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Every year, approximately 10 million hectares of forests are lost in the tropics. Locally, this forest loss has profound impacts on the provisioning of ecosystem services such as water, energy and food security, vital for the 350 million people, many of them poor, relying on forests as a key source for their livelihoods. In a global perspective, tropical deforestation results in carbon dioxide (CO<sub>2</sub>) emissions of approximately 4.5 GtCO<sub>2</sub> annually, substantially contributing to climate change, and constitutes the single largest threat to biodiversity in terrestrial ecosystems.

Recent studies have shown that the drivers of tropical forest loss are increasingly commercialized and globalized, through clearing for production of forest-risk commodities traded on international markets, such as beef, soy, palm oil and wood products. However, the links between expansion of cropland, pasture and forest plantations and loss of biodiversity in the tropics are not fully understood.

*The aim of the MSc thesis is to help quantify the extent to which deforestation for the expansion of agricultural and forestry production is contributing to the loss of biodiversity across the tropics. It will do so by drawing upon spatial datasets on deforestation and biodiversity richness in tropical forests (e.g., available through [WRI's Global Forest Watch data portal](#)) and a recent model for attributing deforestation to agricultural and forestry commodities ([Pendrill et al 2019](#)).*

A better understanding of where and how agricultural and forestry production, trade and consumption contributes to biodiversity loss can help inform both private actor initiatives for deforestation-free supply chains ([Lambin et al. 2017](#)) and public initiatives, such as the EU's development of an [action plan to reduce deforestation](#).

**If you are interested in this project, please email [martin.persson@chalmers.se](mailto:martin.persson@chalmers.se).**