



LAND-USE CHANGE

FACT SHEET | PRINCE PROJECT 2022

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The conversion of tropical forests to cropland, pastures and forest plantations results in major losses of carbon sequestration, biodiversity and livelihoods. Until recently there were no comprehensive data linking consumption of agricultural commodities to deforestation and associated environmental impacts.

In the first phase of the PRINCE project, we constructed a model that quantified the extent to which consumption in Sweden and elsewhere is contributing to tropical deforestation.

We found that every year over five million hectares of forest loss across the tropics can be attributed to the expansion of cropland, pastures and forest plantations, and associated commodity production.

While a bulk of demand for these commodities is still domestic, carbon emissions from deforestation embodied in international trade are still substantial, amounting to one billion tons of carbon dioxide per year in the period 2010-2014.

In the second phase of the PRINCE project, the model has been further refined. We now have data on carbon emissions from tropical deforestation as a result of Swedish consumption between 2005-2018.

The total emissions amount to just under 3 MtCO₂ per year. Two thirds of these yearly emissions are caused by Swedish food consumption. In particular, palm oil from Southeast Asia and beef from Brazil are contributing to these emissions, and these are also on the rise. Emissions due to other commodities and regions, on the other hand, have declined in the last years, due to both reduced deforestation in export countries and changing consumption patterns.

