A global deforestation footprint from production and consumption of primary goods

Giorgio Vacchiano, Maria Giovanna Lahoz, Alessia Ventrice, Marco Bagliani

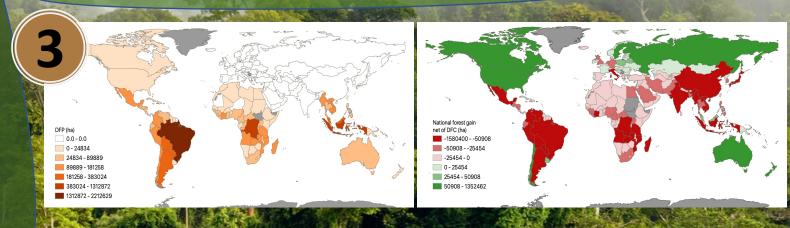
The world lost 178 Mha of forest since 1990. A quarter of global tree cover loss is linked to commodities, such as beef, soy, palm oil and wood.

Previous studies found a correlation between forest transitions in developed countries and geographic displacement of deforestation through traded agricultural products.

We calculated a deforestation footprint of production and consumption of primary goods in 156 global countries.

1) Landsat tree cover loss/gain 2000-2020 (Hansen)

- 2) Regional % share of tree cover loss from commodities (Curtis)
- 3) Bilateral trade data of primary goods 2005-2020 (Pendrill)
- 4) Deforestation footprint of production
- 5) Deforestation footprint of consumption (= internal + import)
- 6) Change of DFP and DFC through time



- Before transition: internal consumption 40-90% DFP
- After transition: DFC >= tree cover gain
- Temporal changes: growth, deforestation and trade