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The EU's new anti-deforestation law has severe loopholes that could be exploited by the forthcoming EU-MERCOSUR trade agreement

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Abstract

The EU deforestation regulation promises global green leadership, however, loopholes may lead to an increase in the trade of deforestation-implicit agricultural products. Ratification of the EU-MERCOSUR free trade agreement could exploit this situation.

On 19 April 2023, the European Parliament ratified the EU deforestation regulation (EUDR), a new law aimed at reducing tropical deforestation embodied in imports of agricultural products to the EU. The deforestation regulation requires companies to prove that their products were not produced on land that was deforested after 31 December 2020 [1]. This law became necessary, as the European Union is one of the main importers of agricultural commodities worldwide (after China) that are associated with deforestation. For example, in 2020, 20% of soy imports and 17% of beef imports from Brazil were linked with illegal deforestation [2]. Currently, only a few commodities are considered in the deforestation regulation: palm oil, cattle, coffee, cocoa, soy, wood and rubber, which comprised ca. 33% of all EU imported agricultural products in 2020 (excluding wood) [3].

The deforestation regulation replaces the 2013 EU Timber Regulation and is intended to support the wider aim of the EU's Green Deal to reach net-zero emissions by 2050 [1]. Together, these policies aim to reduce the EU's environmental impact, both globally from commodity imports and domestically through the Farm to Fork and Biodiversity Strategies aimed at a reduction in agricultural inputs, an enlargement of protected areas and ecosystem restoration [4].

In principle, the deforestation regulation could play a major role in combating the massive deforestation caused by importing agricultural goods for EU consumption: ca. 11 Mha were deforested between 1990 and 2014 [5], an area roughly the size of Bulgaria. Three-quarters of this deforestation was linked to oilseed production (mostly soybean and oil palm) in Brazil and Indonesia—regions of unparalleled biodiversity and home to some of the world's largest carbon sinks, crucial for mitigating climate change [5].

On 28 June 2019, the EU became the first major partner to strike a trade deal with the MERCOSUR bloc (Argentina, Brazil, Paraguay and Uruguay) aimed at boosting bilateral trade between the two regions. If ratified, the EU-MERCOSUR Free Trade Agreement would be the EU's and MERCOSUR's largest trade deal and could remove tariffs on, for example, fertilizers and pesticides from the EU to Brazil and on oilseeds, including soybeans, from Brazil to the EU. This is notable because the EU depends heavily on oilseed imports for livestock feed and biofuels [5]. Brazil, Argentina and the US supply over 60% of oilseed imports to the EU, which is the world's second largest importer [3]. Only China imports more oilseeds than the EU. As such, the free trade agreement may increase the production and import of commodities into the EU posing a high risk of deforestation. This seemingly contradicts the aim of the deforestation regulation to reduce deforestation, and raises the question, how compatible is the free trade agreement with the EU's new deforestation law?

1. Geopolitics and crops

The tension between the ratification of the free trade agreement and the deforestation regulation is not new. The EU announced its Green Deal around the same time that it signed the EU-MERCOSUR Free Trade Agreement in 2019, which happened surprisingly quickly given the previous twenty years of little progress in negotiations. This coincided with threats to the EU of trade tariffs by the US Trump administration. Trade tariffs had already been imposed on China, which responded by shifting their soybean imports to Brazil [6]. The Brazilian political and policy context was amenable to this shift in soybean trade. Farmers deliberately started wildfires in the Amazon, causing the most severe fire damage in almost a decade [7]. In 2019, fires destroyed 33.6 Mha of forest in Brazil alone, likely in anticipation of increased oilseed demand [7]. Criticism since the conclusion of the free trade agreement in 2019 has come from many directions, e.g. the agricultural sector and farming lobbies within the EU (e.g. complaints about increasing competition and price drops), from environmental groups and research (e.g. too weak sustainability guardrails) [8], and from the MERCOSUR countries particularly Brazil themselves (e.g. fear of tighter environmental regulations, neo-colonial practices). At first glance, it may look as if both policies can keep each other in check and thus act in a complementary way. However, both the deforestation regulation and the EU-MERCOSUR Free Trade Agreement are pulling in different directions, with the free trade agreement promoting increasing trade volumes with no binding constraints about where imported crops are sourced from (previously deforested areas or not) and the deforestation regulation demanding complete transparency in sourcing information and thus constraining possible areas and crop types from qualifying as EU imports. These different goals are mutually constraining and thus, will potentially impair what the two policies were designed for. This can be interpreted as a 'tension' or 'contradiction'.

Still, the EU and MERCOSUR are trying to resolve these issues through, for example, regular negotiation meetings. They state that 'considerable progress' has been made on both sides, which is 'mutually beneficial for both regions' [9]. Moreover, countries such as Spain are urging the EU Commission to unblock the MERCOSUR agreement, warning about the decreasing influence of the EU in Latin America and increasing competition from China. Thus, the MERCOSUR region in combination with a free trade agreement remains of geopolitical interest for the EU to meet the EU's crop needs and to limit China's growing political and economic influence in MERCOSUR countries [10].

Brazil is the biggest crop producer in the MERCOSUR region, with a strong focus on producing food, feed and biofuel crops and other commodities for exports, including to the EU and increasingly to China. Historically, crop expansion has been linked to deforestation over a long period of time (figure 1). Due to increased oilseed demand fuelled by trade spats, a booming world economy and unbridled expansion of land use into natural areas under the Bolsonaro regime, Brazil experienced its highest deforestation rates in over 15 years (4.56 Mha in Legal Amazon; 9.88 Mha in the whole of Brazil) from 2019 to 2022 (figure 1). Much of this deforestation was for cattle and soybean production (ca. 67%, figure 1). However, Brazil also increased its overall crop production, with soybean and maize making up nearly 70% of its cropland area in 2021. Soybean expanded by another 5.09 Mha (+14%) and maize by 4.15 Mha (+24%) between 2019 and 2022, respectively [3]. While maize was used as feed for domestic cattle farming (between 60% and 80% consumed domestically), the majority of soybeans (ca. 54%) were exported, mostly to China (48%) and the EU (6%) between 2019 and 2021. Soybean exports from Brazil to the EU increased by over 60% after 2019 (see figure 1).

The EU's 'Farm to Fork' sustainability strategy, launched as part of the Green Deal, aimed to showcase global green leadership [11]. However, importing goods into the EU from countries with laxer environmental regulations has supported an increase in reforestation and less intensive farming domestically, in line with the Green Deal [5].

2. An environmental smokescreen?

Is the EU's adoption of the recent anti-deforestation law related to the free trade agreement? Is the EU showing green leadership or promoting trade in deforestation-prone agricultural commodities?

Increasing bilateral trade facilitated by the free trade agreement, combined with the deforestation regulation's deforestation-free supply chain requirement for certain exported goods, will likely lead to increased indirect deforestation in the MERCOSUR region through relocating and swapping cropland used for different markets. For example, soybean production in Brazil destined for the EU must come from land that was deforested before 2021, while production areas for export to China, domestic consumption and even maize destined for the EU, have no such constraints and can shift to newly deforested areas. Reports [12] indicate that cut-off dates have led to land use swapping between export markets, even on the same farms. The exclusion of maize in the deforestation regulation could explain parts of the significant 24% expansion in maize production in Brazil within just four years since the conclusion of the

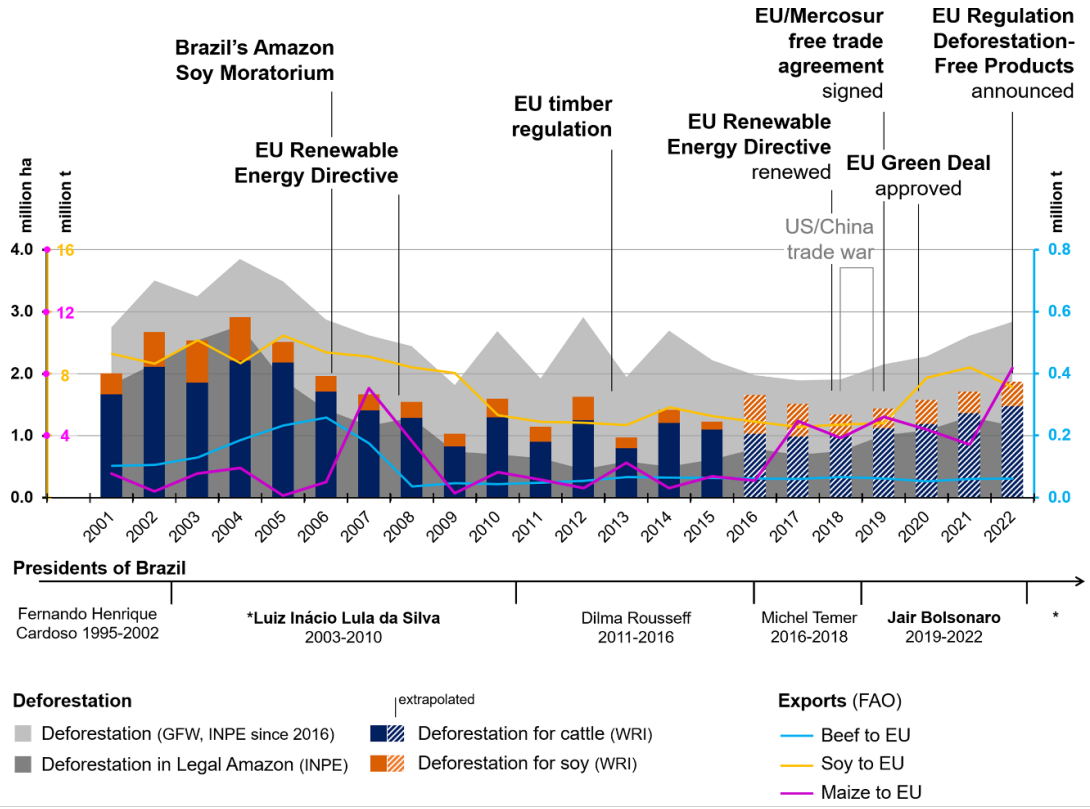

Figure 1. Overview of total annual deforestation rates (in million hectare) in Brazil and Legal Amazon, deforestation for cattle and soy (in million hectare) in Brazil, cattle, soy and maize exports (in million tons) from Brazil to the EU, related to political changes and events.

free trade agreement [3]. However, soybean production linked to deforestation after 2020 could also be replaced by maize in order to be exported to the EU or maize could directly be grown on recently deforested areas for exports to the EU, leading to more land use displacements and deforestation.

Interestingly, maize imports to the EU have increased from 5.2 Mt in 2019 to 8.3 Mt in 2022 (+61%). Spain (a strong supporter of the EU MERCOSUR trade agreement) is the top importer [3]. Moreover, these imports have almost tripled between 2021 and 2022 from 3.4 to 8.3 Mt, around the time when the deforestation regulation was in its final stages of agreement (see figure 1). For context, during the same period, maize production in the EU declined between 2019 and 2022 from ca. 70 Mt to 53 Mt (ca. −25%) [3].

In a scenario where the free trade agreement were not to be ratified, the overall amount of deforestation-implicit agricultural products to the EU could be lower, as higher tariffs and consequently less competitive prices could lower demand for crops from that region, putting less pressure on the land and tropical forests in Brazil. However, increasing global demand could keep the land use and deforestation pressure high in these countries. Still, since insufficient monitoring, tracking, verification of deforestation-linked products prevents the implementation of a carbon-tax, tariffs, although an inaccurate tool, may act as a default quasi carbon tax for products that are potentially linked to deforestation. In the EU, tariffs on certain goods that are linked to deforestation could be used to dampen the demand side, much as with a carbon tax, but it would be important to apply the tariffs to all non-EU countries to avoid unwanted displacement effects [6].

However, the EU's commitment to deforestation-free imports and the simultaneous pursuit of enhanced trade under the free trade agreement appear incompatible. Either the EU is unaware of the deforestation caused by land-use displacement arising from its trade policy, or it is happy to accept it. This also highlights the importance of other markets, such as China, in implementing stricter deforestation-free import policies to reinforce the efforts of the deforestation regulation.

3. Put words into action

Policy makers have various options to improve the current situation. Because of the current loopholes in the legislation and ease of land use displacement, postponing the ratification of the free trade agreement by individual member states would avoid

negative and unintended consequences for the global climate and biodiversity. At the same time, the EUDR could include maize and other crops on the commodity list and monitor areas that are currently not covered by its forest definition (>10% coverage and >5 m tree height), which would likely include savannah landscapes such as the Cerrado or Mato Grosso. Moreover, if the EU is willing to pursue an approach to replace high deforestation-risk commodities with domestic production, such a free-trade agreement might not be needed anymore. Instead, the current status-quo with tariffs would support a shift towards increased domestic production.

Another option would be to rethink EU policies that focus on domestic markets, for example prioritize higher EU crop production and more inner-EU trade to alleviate land use pressure in the tropics. Although having positive effects domestically, EU policies such as the Green Deal, the Farm to Fork and the Biodiversity Strategies could lead to the outsourcing of environmental damage to other parts of the world due to their higher land area demand. The EU currently focuses on a broad set of strategies based on ecosystem restoration, rewilding and organic farming, but risks driving up food imports and causing environmental damage overseas [5] (see also figure 1). The EU deforestation regulation was meant to limit outsourcing of the EU's environmental damage. However, 'well-meant' is not the same as 'well done'. Too many loopholes in deforestation regulation fail to recognise the full extent of the tele-connected impacts in agricultural systems overcomplicating the monitoring, verification and enforcement of sustainable EU crop production [8].

If instead the EU boosted domestic production by increasing production without massively increasing inputs (e.g. fertilizer, pesticides), it could conserve pristine habitats elsewhere in the world. Alternatively, EU society could move towards more plant-based diets, which could also help to buffer disruptions in international food supply [13]. This would not only alleviate problems with tracking sustainable supply chains, but also promote the higher production standards and efficiency of the EU compared to other nations as well as supporting European farmers. While the EU Green Deal & Farm to Fork strategy aim to reduce fertilizer use, it remains largely unrecognised that 4 out of the 5 countries with the highest nitrogen fertilizer use efficiency globally are European countries (Denmark, France, Austria and Germany) [14].

Since 1990, the EU was even able to reduce total fertilizer use while increasing overall yields, which is unique amongst the top agricultural producers in the world, including the US, China, India and Brazil [3]. This was made possible by relying on techniques such as precision farming, new crop varieties and high mechanization. Recently, the EU made a significant step in this direction by permitting New Genomic Techniques (NGT), e.g. Crispr-Cas, on the basis that 'NGT's allow improved plant varieties to be developed that are climate resilient, pest resistant, require less fertilisers and pesticides and can ensure higher yields, helping to cut the use and risk of chemical pesticides in half, and reducing the EUs dependency on agricultural imports' [15].

Changes in domestic consumption and its carbon accounting may also improve the situation. Given the high risk of deforestation attached to imported commodities used for animal feed for domestic markets, reductions in the EU consumption of animal products would have a positive benefit in reducing deforestation. In 2017, subsidy payments for meat and dairy made up over 49% of all agricultural subsidies, whilst fruit and veg only received 17% of total monetary support [16]. Repurposing and restructuring of subsidies away from meat and dairy, and towards fruit and vegetables would make a plant-based diet more affordable, after recent price spikes due to inflation. The many co-benefits of such a strategy are widely reported, and include avoiding large feed-conversion losses, hence sparing land area, reducing greenhouse gas emissions and a lower overall environmental impact from food production and improving nutritional health [7].

This shift would be further encouraged by allowing the sharing of responsibility for carbon emissions between both producers and consumers through consumption-based carbon accounting in the UNFCCC. Using this system, Davis and Caldeira [17] found that in some EU countries, including Sweden, Austria and France, over 30% of consumption-based emissions were imported. Accounting for domestic consumption rather than just domestic production would prevent these emissions from being off-shored.

Finally, improvements and expansion of anti-deforestation policies are needed. The newly re-elected Brazilian president, Lula da Silva is considered to have reduced the rate of deforestation through anti-deforestation policies such as the Soy Moratorium (figure 1) and the Action Plan for Prevention and Control of Deforestation (PPCD) during his first presidential period (2003–2011). However, those policies apply only to the Legal Amazon, which pushed deforestation in the Amazon into the Cerrado. Such leakage effects have been discussed as a substantial barrier to zero-deforestation policies (the within-Brazil leakage rate is 53%) [18]. The new deforestation regulation definition of forest is still so weak that over 70% of the Cerrado is excluded from the zero deforestation efforts. Since Lula has returned to office, the PPCD has been

re-established and expanded to cover the whole of Brazil in an important first step to counteract future deforestation. The Soy Moratorium, as well as the deforestation regulation, need to follow suit by expanding the target area as well as including a more comprehensive forest definition, to avoid further leakage effects.

Ultimately, the EU is seeking to show environmental and sustainability leadership globally, but the reality is less convincing. The EU and its MERCOSUR partners need to provide clear, transparent messaging, avoiding potentially conflicting policy initiatives and putting words into action.

Data availability statement

All data that support the findings of this study are included within the article (and any supplementary files).

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Conflict of interest

The authors declare that they have no conflict of interest.

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