Universidade de Brasília Instituto de Relações Internacionais

Maria Eduarda Dias Nunes (18/0035690)

UE'S DEFORESTATION-FREE PRODUCTS REGULATION

A new step in land-use change and maintenance of forests

Submitted to the Institute of International Relations, University of Brasília, Brazil In Partial Fulfilment of the Requirements for the Degree of Bachelor of Arts in International Relations Supervised by Antonio Jorge Ramalho da Rocha

> Brasília, Distrito Federal 25 de setembro de 2022

Agradecimentos

Aos familiares, vocês são facilmente as pessoas que mais me deram oportunidade de crescer em todos os diferentes momentos da minha vida. Me contaram dos meus primeiros passos, da primeira vez na praia, na água do mar, me deram amor e carinho quando eu ainda nem sabia o que isso era, me ensinaram a cuidar e preservar tudo que eu amo e, mesmo que desde muito novinha eu já não estivesse fisicamente perto, me encheram de conforto e segurança pra enfrentar o mundo de peito aberto. Aos meus avós, Maria Tereza e Élcio Dias que me cuidaram, à minha mãe, Renata Dias, que me ensinou a viver, ao meu tio e padrinho, Claúdio Dias, que me adotou como filha, às minhas cópias, João Gabriel e Maria Luiza, que me prepararam para amar e a minha tia, à Andréia Barreto, minha eterna confidente e à minha madrinha, Andreia Braga. Metade de quem eu sou hoje, todos os sucessos, todas as conquistas, são pela presença e pela segurança de vocês na minha vida.

Aos amigos, minha família não-sanguínea, a minha outra metade existe pela existência e perseverança de vocês. Pelas noites de risadas, pelas piadas internas, pelos choros compartilhados e pelos sonhos sonhados em conjunto. Ao meus amigos da graduação que passaram toda a jornada da UnB ao meu lado, entre matérias compartilhadas, projetos, intercâmbio e salas de unbidiomas, vocês fizeram a minha graduação, em especial, Letícia Mamedes, Jales Caur e Celso Coelho, que conhecem todos os meus maiores medos e minhas maiores felicidades, obrigada por nunca soltarem minha mão. À Júlia Perrotti, por nunca ter deixado que a distância diminuísse a nossa amizade. À Thayse Cardoso, por nunca desistir de me ensinar francês.

Por fim, gostaria de agradecer à Domani Consultoria Internacional, minha casa mais longa durante a graduação, por me apresentar referências e me abrir um mundo inteiro de oportunidades. À equipe de Relações Governamentais da Cargill Brasil, que me possibilitaram iniciar minha carreira profissional, Analu Cordeiro, Marta Queiroz e Thiago Skaf. Ao professor Antonio Jorge que tornou este trabalho possível e me ajudou na jornada acadêmica mais desafiadora até aqui.

Em memória da minha tia-avó, Maria Neyde.

ABSTRACT

The discussion on deforestation and forest preservation is one of the most prominent regarding climate change and sustainable development. The Regulation on deforestation-free products proposed by the European Union follows the line of international agreements and proposes a mandatory due diligence for cattle, cocoa, coffee, oil palm, soya, wood, pigmeat, sheep and goats, poultry, maize, and rubber, as well as charcoal and printed paper products entering or leaving the European Union. The measure aims to reduce the *embodied deforestation* in European consumption and reduce deforestation, forest degradation and forest conversion in supply chains over the world. This analysis highlights, majorly by documental analysis, important topics of the approved legislation, such as its origins, the first proposal and what it actually expects from anyone who wants to trade with the EU. Possible impacts and challenges for the policy implementation are also addressed in order to predict possible modifications. In conclusion, the regulation is an important step towards climate action and may be a relevant model for other countries' regulations in the next few years depending on its results.

Keywords: deforestation-free regulation, European Union, due diligence.

RESUMO

A discussão sobre desmatamento e preservação de florestas é um dos temas mais proeminente no que tange mudanças climáticas e desenvolvimento sustentável. A Regulação sobre produtos livres de desmatamento proposta pela União Europeia segue a linha de tratados internacionais e propõe uma diligência devida para a entrada e saída de produtos como gado, cacau, café, óleo de palma, soja, madeira, carne suína, ovinos e caprinos, aves, milho e borracha, bem como carvão vegetal e produtos de papel impresso no território da UE. A medida visa reduzir o desmatamento incorporado no consumo europeu e reduzir o desmatamento, a degradação e a conversão de florestas nas cadeias de suprimentos em todo o mundo. Esta análise destaca, principalmente por meio de análise documental, tópicos importantes da legislação aprovada, como suas origens, a primeira proposta e o que ela de fato espera de quem que queira comercializar com a UE. Os possíveis impactos e desafios para a implementação da política também são abordados a fim de prever possíveis modificações. Em conclusão, a regulamentação é um passo importante para a ação climática e pode ser um modelo relevante para as regulamentações de outros países nos próximos anos, dependendo de seus resultados.

Keywords: produtos livres de desmatamento, União Europeia, diligência devida.

ABSTRAIT

Le débat sur la déforestation et la préservation des forêts est l'une des questions les plus importantes en matière de changement climatique et de développement durable. Le règlement sur les produits sans déforestation proposé par l'Union Européenne s'inscrit dans la lignée des traités internationaux et propose une diligence raisonnable pour l'entrée et la sortie de produits tels que le bétail, le cacao, le café, l'huile de palme, le soja, le bois, le porc, la viande ovine et caprine, la volaille, le maïs et le caoutchouc, ainsi que le charbon de bois et les produits en papier imprimé sur le territoire de l'Union Européenne. Cette mesure vise à réduire la déforestation incorporée dans la consommation européenne et à réduire la déforestation, la dégradation et la conversion des forêts dans les chaînes de production à travers le monde. Cette analyse met en lumière, principalement par le recours à l'analyse documentaire, des aspects importants de la législation approuvée, tels que ses origines, la première proposition et ce qu'elle attend réellement de toute partie désireuse de commercer avec l'UE. Les impacts et les défis possibles de la mise en œuvre de la politique sont également abordés afin d'anticiper d'éventuelles modifications. En conclusion, le règlement constitue un pas important vers l'action climatique et pourrait constituer un modèle pertinent pour les règlements d'autres pays dans les années à venir, en fonction de ses résultats.

Keywords: règle zéro déforestation, Union Européenne, devoir de vigilance.

Table of Contents

Introduction	4
The evolution of Climate Change and Land Use Change Discussion	6
1.1. United Nations Framework Conventions on Climate Change (UNFCCC)	7
1.2. Paris Agreement: a shared goal	11
1.3. The Convention on Biological Diversity	13
European Union deforestation-free products regulation	15
2.1. Background	15
2.2. Legislative Process	17
2.3. Due Diligence System	20
The Deforestation-free Regulation pros and cons	25
3.1. Regulation critics	26
3.1.1. Defensive Trade Policy	26
3.1.2. World food security and due diligence costs	28
3.2. Benefits of a deforestation-free regulation	29
3.3. Deforestation-free supply chains example: Soy Traceability	31
Conclusion	32
References	34

Introduction

At UNFCCC COP 26, in November 2021, 101 countries signed the Glasgow Leaders' Declaration on Forest and Land Use which pledges for the end of deforestation by 2030, all kinds of deforestation (Ferrer 2021). This is the biggest international action taken to preserve the world's forests, with nearly \in 16.5 billion investments to restore degraded land, tackle wildfires, and support Indigenous communities. The public investments (\in 10.3bn) will be provided by 12 countries and private investments (\in 6.24bn) by more than 30 financial institutions, who will also promise to eliminate any activities linked to deforestation.

Forest preservation is one of the most relevant topics in environmental discussion, as climate change gets everyday closer and visible by heat waves, climate catastrophe and new epidemics keep appearing. The fight against greenhouse gasses emissions is one of the most discussed themes when forest preservation is in debate, since forests absorb around a third of global CO₂ emissions. Nevertheless, land-use change related to logging, deforestation and agricultural expansion keep increasing global GHG emissions. Protecting forests, besides preventing emissions and global warming, has an important impact in a different perspective, biodiversity and the mitigation of new diseases and safeguarding the future of all people whose livelihoods depend on forests (Ferrer 2021).

Besides those elements, the Sustainable Development Goals (SDGs) — or the 2030 Agenda — established in 2015, one of the most relevant international action plans, also discusses the preservation of forests in different instances. The 2030 Agenda motto is to transform the world, *all countries and all stakeholders, acting in collaborative partnership* (UN 2015, 3). It states in its essence the necessity of changing common and customary habits and logics, and that *everyone is responsible* for the change. The SDG 15 — Life on Land — addresses specifically the necessity to preserve forests and other ecosystems. When we analyse the EU policies on forest preservation it corroborates to another nine SDGs besides

the 15th goal, enfacizing SDG 13 that addresses Climate Action and SDG 12 for responsible consumption and production (EC 2019).

In 2020, the European Union had already launched a global cooperation platform to fight deforestation that fosters exchanges among stakeholders in order to build alliances, and to puch commitments to significantly reduce deforestation (EC 2020a). Nevertheless, agriculture expansion is still responsible for almost 90% of global deforestation — 49,6% destinated for cropland expansion and 38.5% for livestock grazing (UN 2022, 56) —, which inclines a special measure that protects forests at least in one mandatory method prevent specific deforestation, forest degradation and forest conversion related to agriculture.

This analysis discusses the newest EU regulation for forest protection, the Regulation on deforestation-free products that aims to prevent specificatly this kind of deforestation. As a polemic and still dubius measure, the major goal of this paper is to make the regulation and its ramifications as clear as possible. For that, the first chapter highlights the international conferences that address climate change and biodiversity security, emphasizing the discussion on land-use and land-use change, the main challenges that the regulation aims to resolve — at least for the supply chains that include the European Union. The second chapter describes the regulation's legislative process, its origins, the first proposal and what it actually expects for operators, traders and anyone who wants to trade with the EU. The last chapter deals with the possible impacts and challenges for the policy implementation, such as WTO rules, food security and due diligence costs.

This is a first approach for a new policy making in the international scenario and that may influence positively for more sustainable supply chains. That does not mean that the regulation is flawless, but it is a start to involve all parties in the transformation of *our* world.

Chapter I

The evolution of Climate Change and Land Use Change Discussion

Discussions on climate change had their prominent start within the international scenario in the United Nations Conference on the Human Environment, also known as the Stockholm Conference, in June 1972. Then, followed by the United Nations Conference on Environment and Development (UNCED) — Earth Summit held in Rio de Janeiro in June 1992 —, which shaped the international regime of climate change through the United Nations Framework Convention on Climate Change (UNFCCC) along with the Kyoto Protocol (Viola 2002, 26). The Paris Agreement adopted in 2015 marks a new step in the international regime of climate change (UNFCCC [2018]). What all these documents have in common is the shared goal to reduce the rising temperatures on Earth provoked by anthropological action. Consequently, the reduction of greenhouse gasses (GHG) emissions to stop the process.

1.1. United Nations Framework Conventions on Climate Change (UNFCCC)

The first document under the UNFCCC was held in the face of analyses made by the Intergovernmental Panel on Climate Change (IPCC)¹. In 1990, the first IPCC reports on the science, impacts, and policy aspects of climate change were published to bring light to an anthropological influence on climate change (Breidenich et al. 1998, 316), and an initial consensus knowledge was established on the matter (Gupta 2010, 637). The "Climate Change: Impacts Assessment of Climate Change" (1990) listed some potential impacts of the abnormal emission of GHG that covered a) Agriculture and forestry; b) natural terrestrial ecosystems; c) hydrology and water resources; d) energy, transport industrial sector; e) human health, air quality, and f) changes in ultraviolet-B radiation; as well as oceans and coastal zones and

¹ The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for assessing the science related to climate change.

snow, melting of ice and permafrost (IPCC 1990a). An essential framework on how the world would be affected by the rising in Earth's temperature was made, followed by the publication of another report on how to respond to climate change, the Climate Change: The IPCC Response Strategies. In the "Business as Usual"² scenario, the global average temperature was predicted to rise 0.3 degrees centigrade per decade, and in a "extremely stringent emission reductions" scenario, it could be *reduced* to 0.1 degrees centigrade per decade (IPCC 1990b, xxxiv).

Either way, the response expected by the IPCC to deal with climate change was focused on limiting net greenhouse gas emissions and adapting society and managed ecosystems to a changing climate. In this context, the first UNFCCC document was designed to be a first step in dealing with the threat of anthropogenically induced climate change (Breidenich et al. 1998, 317), being its "ultimate objective (...) [the] stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system." (UN 1992, 9).

A unique feature of the climate negotiations was the implementation process, leading the meetings to be continued until the ratification and the entering into force of the treaty (Gupta 2010, 639). However, the treaty did not have specific targets. The IPCC had predicted that stabilizing the greenhouse effect and its concentration of GHGs, the level of emissions was supposed to drop by 60% (IPCC *apud* Breidenich et al. 1998, 318). While the treaty enlightened that countries have "common but differentiated responsibilities" (UN 1992, 9-10) it was never accorded a bidden accord on how much the level of emissions was supposed to drop on each country within a timetable, regardless of their status (Breidenich et al 1998, 318). To resolve that problem, in the first Conference of the Parties (COP), held in Berlin (COP-1), the Berlin Mandate promoted a legally binding reduction of GHGs emissions within timetables to be adopted at the third conference, COP-3 in 1997, Kyoto (Gupta 2010, 639).

² "(...) few or no steps are taken to limit green-house gas emissions" (IPCC 1990b, xxi).

The Kyoto Protocol (KP) was the first legally binding accord made within the UNFCCC. It provided emissions targets for Annex I countries — the industrialized countries, responsible for at least 55 percent of total emissions for 1990 of carbon dioxide (CO₂) (Breidenich et al 1998, 315) — based on five years (2008-2012), an average of 5% of 1990 emissions reduction was established with country-specific targets — which meant that some countries like Australia and Greece could increase their emissions, while Denmark and Germany had to reduce in 21% (Schulze, Valentini, Sanz 2002, 506) —, respecting the "differentiated responsibilities" constituted in the UNFCCC document. In this phase, the targeted GHGs were Carbon dioxide (CO₂) Methane (CH₄), Nitrous oxide (N₂O); and synthetic greenhouse gasses: Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), and Sulphur hexafluoride (SF6), (UNFCCC 1997, 22). Two other ideas were present in the document: 1. carbon sinks³, which allow countries to create tools to offset emissions — such as planting forests; and 2. market-based mechanisms of emissions (Viola 2002, 30). In the first, it takes the land use change and forestry into account but doesn't specify how the carbon sequestration is taken, leading to unreliable data (Breidenich et al 2016, 322).

A report from IPCC was asked after the eighth COP session in Bonn (1998), to clarify and make suggestions on land use matters, leading to a Special Report on Land Use, Land Use Change, and Forestry (SR-LULUCF). This report aimed to answer key questions and to "describe how the global carbon cycle operates and what the broad-scale opportunities and implications of ARD [aforrestation, reforestation, and deforestation] and additional human-induced activities are, now and in the future." (IPCC 2000, vii). The Kyoto Protocol had the forest management activities used in gross-net accounting⁴ to measure the impacts of forest management activities, which meant that if a LULUCF activity led to GHGs emissions

³ ""Sink" means any process, activity or mechanism which removes a greenhouse gas, an aerosol or a precursor of a greenhouse gas from the atmosphere." (UNFCCC 1992, 7)

⁴ "Gross-net accounting considers emissions and removals during the commitment period only, without comparison to the emissions and removals of a previous time period." (Schalamadinger et al 2007, 277)

they were obliged to be included in report emissions from fossil fuels and other sources to determinate total emissions (Schalamadinger et al 2007, 277). However, as the change in land use could be accountable for greenhouse gasses emission, some countries wanted to add their carbon sinks (or carbon pools) — in the form of management of forests, reforestation, and afforestation — as credits for emissions, generating a bigger discussion in sessions of COP6 (The Hague), COP6bis (Bonn) and COP7 (Marrakesh). During the discussion on land-use matters in the Kyoto Protocol, the *Umbrella group* — USA, Canada, Japan, Australia, Norway, New Zealand, and the Russian Federation — used the carbon sinks, formed by land management, as an important balance for fossil fuel emissions (Schulze, Valentini, Sanz 2002, 509). In that matter, the Hague session ended with Germany's proposal that allowed credits and debits on carbon sinks, limits accounting for some *Umbrella states*, and the prohibition on sinks accounting under Clean Developing Mechanisms (CDM).

Within the Hague and the Bonn session, the United States withdrew from the Kyoto negotiations, and various bilateral negotiations took place leading to a more coherent discussion. The Bonn Agreement (2001) had as main achievements concerning LULUCF: 1) the exclusion of primary forests from accounting in carbon sinks; 2) afforestation was defined as an activity on land that has not been forested for at least 50 years; 3) and quotas for allowable accountable sink credits for forest management were established for each country. In addition, caps and discounts were to be applied to the national reports to account for the effects of elevated deposition of carbon dioxide and nitrogen in full for crop and grazing land management and re-vegetation sinks, on the other hand, forest management sinks were based on changes in carbon pools discounted by 85% to make up for CO₂, N-deposition and forest age structure resulting from activities and practices before the reference year. The decision for different treatment between forest and land-use activities was based on political decisions in the negotiations. In what concerns CDMs, only afforestation and reforestation were

accountable, without a consensus if new rules and definitions needed to be developed (Schulze, Valentini, Sanz 2002, 511-513).

Compliance was the main question that remained after the Bonn Agreement, which was addressed in Marrakesh. The Marrakesh Agreement (2001) formed an organization to organize and control compliance, created by six non-Annex I and four Annex I nations. It also addressed that in case of non-compliance of the parts, the exceeded emission would be multiplied by 1.3 and debited into the second (or subsequent) commitment. Regarding the carbon credits, nations had to report their GHG emission annually if they intended to participate in the trade of C-units. (Schulze, Valentini, Sanz 2002, 515). Even with the withdrawal from the United States, after Russia's ratification on 18 November 2004, the Kyoto Protocol entered into force on 16 February 2005 following Article 25, "incorporating Parties included in Annex I of the Convention which accounted in total for at least 55 % of the total carbon dioxide emissions for 1990 of the Parties included in Annex I, had deposited their instruments of ratification, acceptance, approval or accession" (UNFCCC 1997, 18).

This part of the UNFCCC evolution was important in understanding how land use could collaborate to mitigate carbon emissions. However the Kyoto Protocol was directed to industrialized countries (Annex I) and possibilities of clean development mechanisms and carbon emissions trade letting the role of non-Annex I countries in LULUCF mitigation limited to afforestation and reforestation (AR), deforestation in developing countries accounted at the time for almost one-quarter of global GHG emissions (Schalamadinger et al 2007, 278). In that case, the possibility of mitigation progress within reforestation and CDM was an important window to enable changes in that scenario.

A bigger involvement in mitigation policies from developing countries started to explicitly appear in COP15 with the Copenhagen Accord (2009). Still, a consensus on how developing countries would take part in their emissions mitigation was not reached. In 2010,

with the Cancun agreement, a \$100 billion per year fund was discussed for clean development and emissions mitigations. Nevertheless, the first time all Parties (Annex I and non-Annex I) agreed to participate in a common framework with mitigation policies was at the Paris Agreement (PA) in 2015 (Leggett 2020).

1.2. Paris Agreement: a shared goal

The Paris Agreement (2015) was adopted in COP21 and its main objective is to hold "the increase in the global temperature to well below 2 °C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognizing that this would significantly reduce the risk and impacts of climate change" (6). Through Nationally Determined Contributions (NDCs), countries add their nonbinding pledges to mitigate greenhouse gas emissions, 2020 was the first year for NDCs submissions, and every five years they are supposed to have new submissions that should progress over time. Therefore, the Paris Agreement, for the first time under the UNFCCC, established a common framework with common guidance in which *all* Parties participate in achieving its primary goal (Leggett 2020): to reduce global warming and reach a peak of emission as soon as possible (PA 2015, Article 4).

The guidelines to achieving this goal — respecting the primary idea that countries have different responsibilities in it — and the submissions for NDCs are that developed countries should lead by "economy-wide absolute emission reduction targets" while developing countries should enhance their mitigation efforts and "move over time forward towards economy-wide emissions reduction or limitation" (PA 2015, Article 4). However, the agreement specifically calls on "conserve and enhance" sinks and reservation of GHG creating Global Stocktake, which means an important contribution to land-based mitigation (Fyson; Jeffery 2019). In Article 5, a call for "*policy approaches and positive incentives for*

activities relating to reducing emissions from deforestation and forest degradation" (PA 2015, Article 5), reinforces the role of carbon sinks in mitigation. By contrast, how LULUCF can contribute to mitigation is still in question (Fyson, Jeffery 2019), and reducing agriculture emissions plays an important part in limiting global warming to 1.5 °C, especially because evidence suggests a reluctance to the application of climate policies that could stringency agriculture (Leah, Clark, Reisinger 2020). In the concept of Planetary Boundaries (PB) — proposed by Johan Rockström of Sweden's Stockholm Resilience Center — four of nine limits were already crossed, land system change being one of them (Steffen et al. 2015), which gives land use an even more important role when it comes to anthropogenic induced climate change mitigation and regression.

In conclusion, the achievement of the Paris Agreement goals and an effective battle against climate change are still *en route* and will depend on bigger and broader compromises. The importance of climate change, however, has changed since Stockholm, it is no longer a secondary issue, but one of the main concerns for the international community (Viola, Franchini, Ribeiro 2012). The regime for dealing with these issues has always demanded the presence of at least one actor that pushes the process and that it's capable of leading the regime, in which the European Union has a bigger acting capacity than national States (Viola 2002), the changes in the international framework and relevance of climate change have driven other social spheres in taking action for climate change and global warming, a growing in stakeholder Capitalism is notable (Tyson, Mendonça 2020), and the regime of climate change can be included in a Global Governance for climate change with multiple actors and also conflicts (Viola, Franchini, Ribeiro 2012), that will be addressed specifically in this analyzes in form of the proposal for a deforestation-free products regulation and its impacts.

1.3. The Convention on Biological Diversity

The Convention on Biological Diversity is another range of the fight against deforestation and forest degradation that the European Commission takes into account for the Deforestation-free Products Regulation. The Adoption of the Agreed Text of the Convention was held in Nairobi, Kenya, in 1992. Adopted in the same context as the Kyoto Protocol, the Convention was concerned with the distinction between developed and undeveloped countries' responsibilities in the protection of biological diversity (CBD [2009]). Its primary purpose is the "conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources" (UN 1992, Article 1). However, this convention has a very technical approach, it discusses the protection of the genetic resources for biological diversity, its first supplement was the Cartagena Protocol on Biosafety in 2003, which also doesn't mention deforestation or the risk of biological diversity lost with forest degradation. The second supplement, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity discusses the third objective of the convention (CBD 2011) but the Strategic Plan for Biodiversity 2011-2020, a document signed in the same conference, was the first on to address forests as an important resource to protect Biological Diversity and the lack of effective protection of biodiversity lost. The Strategic Plan had as its primary goal to promote effective implementation of the Biodiversity Diversity Convention through shared goals and targets — the Aichi Biodiversity Targets (CDB 2010, 6). One of the targets calls for an end to the loss of all natural habitats (B.5) and another for sustainable management of areas under agriculture, aquaculture, and forestry (B.7).

Later on, different documents discussed the importance of forest and other ecosystems preservation for biodiversity protection, including in consonance with climate change.

Therefore, the fight against deforestation, forest degradation, and aforestation doesn't concern only — or is only important for — GHG emissions or carbon sinks, it also touches on the importance of maintaining biodiversity, different natural habitats, and human rights regarding indigenous and other traditional communities. A discussion for a strategy for the CBD post-2020 is on going (CDB [2020]), but other shared international goals, such as the Sustainable Development Goals (SDGs) — or the 2030 Agenda —, also take into account the preservation of natural habitats in the search for a more sustainable world, as was described in the introduction.

Chapter II

European Union deforestation-free products regulation

2.1. Background

The proposal for a regulation on deforestation-free products was introduced in the 2019 Commission Communication on Stepping up EU Action to Protect and Restore the World's Forests, as part of the European Union Green Deal (EC 2021a). Three major challenges were addressed as the reasons to protect and restore forests: a) Biodiversity decline; b) emissions from land-use and land-use change resulting in climate change; and c) livelihoods of vulnerable people who rely heavily on forest ecosystems, as indigenous peoples (EC 2019, 1). The EU's concern regarding the protection of forests has been ongoing for decades, since 2003. In fact, the EU Forest Law Enforcement, Governance and Trade Action Plan to fight illegal logging and associated trade, - being one of its components the EU Timber Regulation (EUTR) — introduced a due diligence on timber and timber products to minimize the risk of placement of illegally harvested timber in the European market (EC 2019). The stepping up on forest protection from the EU in this new plan comes from the alarming rates of deforestation in other regions, especially in tropical areas. The concern for primary forests⁵ is highlighted as they are "generally more carbon-dense and biologically diverse than [...] modified natural forests and plantations" (Secretariat... 2009, 11), protection of these kinds of forests prevents GHG emissions and conserves biodiversity — forests have closely 75 percent of the world's terrestrial biodiversity (FAO 2016, 2) -, but it also emphasized the afforestation and restoration of degraded forests as a reduction of pressure on primary forests and defense for climate change (EC 2019), as stated in UNFCCC papers and resolutions

⁵ Accordingly, the CDB primary forest is a forest that has never been logged and has developed following natural disturbances and under natural processes, regardless of its age. (CDB [2020])

regarding land-use and land-use change, but the protection of forest is also linked to at least five different SDGs, being essential in the construction of sustainable development practices.

Nevertheless, to combat deforestation and forest degradation it is important to target its causes. The Food and Agriculture Organization of the United Nations (FAO) report on State of the World's Forests from 2016 analyzing land-use challenges and opportunities within forests and agriculture stated that agriculture is still "the most significant driver of global deforestation" (FAO 2016, 2), being agricultural expansion the driver of around 80 percent of world deforestation (Kissinger, Herold and De Sy 2012 *apud* FAO 2016). Within the types of agriculture expansion, the large-scale export-focused commercial agriculture based on commodities accounted for 40 percent of deforestation in a study analyzing deforestation in 46 tropical and subtropical countries representing about 78 percent of the forest areas (Hosonuma et al. 2012 *apud* FAO 2016). Most of these commodities — such as palm oil, meat, soy, cocoa, maize, timber, and rubber — are present in the EU supply chain as raw materials as well as processed products and services, leading to an EU consumption of around 10 percent of the global share of commodities associated with deforestation — or "embodied deforestation"⁶ (EC 2019, 4).

With that in mind, the European Parliament and Council Proposal for a regulation on making available on the Union market as well as export from the Union of certain commodities and products associated with deforestation and forest degradation (2021/0366 (COD)) — proposal for a regulation on deforestation-free products — intends to reduce the deforestation provoked by EU consumption and production by limiting the placing of products that are related with all kinds of deforestation — not only the illegal as the Timber Regulation — in their supply chain, which means any products "that contain, have been fed with or have been made using these commodities" (EP 2022a). The aim is to assure that the

⁶ Deforestation embodied (as an externality) in a produced, traded, or consumed product, good, commodity or service (EC 2019)

products consumed within the European Union are not part of deforestation or forest degradation and have been produced in conformity with their origin country's laws (EP 2022b). Accordingly to the European Parliament, the idea is to assure EU consumers that the goods they are consuming do not contribute to deforestation at any time (EP 2022b). This proposal is part of a bigger package that includes Sustainable Corporate Governance (SCG), sustainable finances, and renewable energy that will target deforestation and forest degradation in different areas (EC 2021a).

2.2. Legislative Process

The regulation was published on 17 November 2021 by the Directorate-General for Environment in the European Commission, as expected by the Commission Work Programme for 2021, as well as the EU biodiversity strategy for 2030 (EC 2020b) — published in June 2021. On 22 October 2020, the Parliament had already adopted a resolution (2020/2006 (INL)) with EU legal framework recommendations regarding deforestation-driven consumption in the EU, which praised voluntary labeling and certifications but stated that they alone wouldn't solve the consumption of deforestation-driven products within the European Union, suggesting mandatory rules based on due diligence (EP 2020). The proposal was presented to the Committee on the Environment, Public Health and Food Safety (ENVI) on 18 November 2021 whereas the deadline for amendments was on 21 April 2022.

As the EU's legislative process requires, the European Council made its general approach favorable to the regulation on 28 June 2022. After the establishment of an ad-hoc working party (on the risk of deforestation and forest degradation associated with products placed on the EU market — AHWP DF), the Council's suggestion was to focus on the forest ecosystem and the six commodities proposed by the Commission, and the revision of them within two years of implementation, to ensure proper implementation of the regulation.

Besides that, the Council also stressed the need to cover forest degradation and to have clear definitions (CEU 2022).

The ENVI committee for the European Parliament voted on the proposal and its amendments on 12 July 2022. Was decided that the Parliament Committee wants to include pigmeat, sheep and goats, poultry, maize, and rubber, as well as charcoal and printed paper products within the list for required due diligence, a different direction to the Council statement. Additionally, ENVI also wants to extend the due diligence for goods produced from 31 December 2019 — instead of 31 December 2020 — and encourages the extension of international human rights and the rights of indigenous people as requirements for due diligence. The votes also advocated reevaluating the policy within two years of implementation to verify the need to extend the regulation for other goods such as sugar cane, ethanol, and mining products (EP 2022c). The proposal was voted in the Parliament's Plenary on 13 September in the document's first reading, and 260 amendments were added to the original text proposed by the Commission, including the changes approved by the ENVI Committee. Further explanations regarding the regulation are considering the approval of these amendments which, besides other items, enlarged the scope of products covered by the new legislation and gave obligations to financial institutions in the EU that provide financial services linked in the production, supply, placing on or export from the Union market of the relevant commodities (EP 2022d).

Member States have had the proposal in hand since its publication by the European Commission, the regulation and its amendments still have to be discussed as a final step to its adoption. Nevertheless, the directives approved are directly established as results to be achieved by the member states which have to decide how to adapt their laws to achieve the new Regulation goals. In this specific case, the deforestation-free products regulation implementation requires that member states designate one or more competent authorities to carry out the obligations three months after the Regulation enters into force (EC 2021a, Article 3) to be responsible for inspection plans having in mind the risk-based approach, but they are also required to provide technical and other assistance and guidance to operators — "any natural or legal person who, in the course of a commercial activity, places relevant commodities⁷ and products⁸ on the Union market or exports them from the Union market" (EC 2021a, Article 2) —, with the objective to make the compliance with the conditions and normative necessary for the implementation. These necessities have a cost that is previewed by the Impact Assessment of the Regulation, which will be discussed later.

As part of the legislative process for the regulation a stakeholders consultation was taken in three different approaches: I. Feedback on the impact assessment; II. Online Public consultation (OPC); and III. Targeted stakeholders consultation. The OPC was the second most popular EU consultation in history, with almost 1,2 million responses. As the Impact Assessment (EC 2021b) specifies, the number of responses was linked to a campaign carried out by NGOs with more than 1,19 million responses, leading to a distorted result, which was resolved when analyzing the "non-pre-filled questionnaires" 1,150 responses. Within these responses, the majority of respondents were EU citizens (71%), followed by NGOs (7%), Companies (6%), and business associations (4%); only 13,3% of respondents were from non-EU member states. The regulation is supported and viewed as an important step in reducing global deforestation, especially with binding measures (mandatory due diligence or public certification). The document also suggests that a majority of business respondents support the measure as a tool for reducing "unfair competition". However, the major obstacle identified in the responses was the cost of deforestation-free products.

⁷ cattle, cocoa, coffee, oil palm, soya and wood (EC 2021a, 11)

⁸ that contain, have been fed with or have been made using relevant commodities (EC 2021a, 11)

2.3. Due Diligence System

As stated, the primary mechanism, the due diligence system, it's based on the Timber Regulation. If the regulation is approved as it is, before the placement or exportation of relevant commodities and products, due diligence must be presented with the operator's name, address, and the Economic Operators Registration and Identification (EORI) number, as well as the Harmonised System code (HS code) with its description and country of production and all plots of land of production, including geo-localization coordinates, latitude, and longitude of the relevant commodity or product. The due diligence requires that documents and data which demonstrate that the articles are deforestation-free and have been produced in accordance with the country of production legislation must be conserved for at least 5 years, be reviewed at least once a year, and must present supporting evidence for the due diligence if requested by competent authorities regarding the following information:

> "(a) description, including the trade name and type of relevant commodities and products as well as, where applicable, the common name of the species and its full scientific name;

> (b) quantity (expressed in net mass and volume, or number of units) of the relevant commodities and products;

(c) identification of the country of production;

(d) geo-localisation coordinates, latitude and longitude of all plots of land where the relevant commodities and products were produced, as well as date or time range of production;

(e) name, email and address of any business or person from whom they have been supplied with the relevant commodities or products;

(f) name, email and address of any business or person to whom the relevant commodities or products have been supplied;

(g) adequate and verifiable information that the relevant commodities and products are deforestation-free;

(h) adequate and verifiable information that the production has been conducted in accordance with relevant legislation of the country of production, including any arrangement conferring the right to use the respective area for the purposes of the production of the relevant commodity;" (EC 2021a, 39)

The operators are the ones responsible for the due diligence exercise and for confirming that the relevant commodities or products are in accordance with the regulation specification, assuming responsibility for compliance in that matter, as well as passing these documents to the next operators and traders of the supply chain. The Commission expects that operators are capable of determining the relevant commodities and products by satellite monitoring tools, field audits, capacity building of suppliers, or isotope testing (EP 2022c). Because of that responsibility, if the operator receives any information that the relevant commodities or products are not in accordance with the deforestation-free regulation, it must immediately inform the Member States' competent authorities of production or where the article was placed (EC 2021a, Article 4). Traders⁹ are considered operators by the Regulation unless they are SMEs (small and medium-sized enterprises) in which case the pieces of information requested are: "the name, registered trade name or registered trademark, the postal address, the email and, if available, a web address of the traders to whom they have supplied the relevant commodities and products", all others specifications are still in effect (Article 4). Operators established in third-world countries also have a different responsibility, in this case, the first person (legal or natural) who is in possession of relevant commodities or products is considered the operator for the purposes of the Regulation (Article 7). Is expected that operators also publish every year their due diligence information publicly (Article 11), to increase transparency in the regulation process.

A simplified due diligence is also available by the Regulation to reduce costs and work in the constitution of the document. It, however, imposes that to do a simplified version of due diligence the countries where the relevant commodities or products are produced has a low risk within the benchmarking system. The amendments also brought a new approach within the scope of the regulation, referring to human rights, indigenous people, and local

⁹ "any natural or legal person who, in the course of a commercial activity, makes available on the Union market relevant commodities and products" (EUTR 2010 *apud* EC 2021a, 35)

communities importance to forest preservation, requesting that operators shall engage meaningfully with vulnerable stakeholders, ensuring that they receive assistance and fair remuneration and that the costs resulting from the implementation of the Regulation are fairly shared among the different actors.

To guarantee that operators and traders comply with their obligations, competent authorities of each member state are obligated to perform checks establishing a plan based on a risk-based approach in at least 10 percent of the quantity of each relevant commodity placed or made available on or exported from their market. The check includes not only the due diligence documents, but as well as quantities, the history of the operator or trade, and the proximity to forests where the relevant commodities were produced. Risk analyses are regarding the information in the due diligence presented to competent authorities, when any risks are detected, competent authorities shall call for immediate action and suspend the placing of relevant commodities or products in the EU market. If no irregularity is found within five days or 72 hours for fresh commodities and products which are at risk of spoilage, the suspension shall end or the competent authority should extend its claim for longer as an interim measure (Article 21), a limit for these suspensions is not specified. Consistent records are rewarded with less frequent checks under the competent authorities' obligations (Article 14).

While countries categorized as low-risk may have annual checks of 5 percent of the quantity of each of the relevant commodities placed or made available on or exported from their market (Article 14), in high-risk countries the annual checks must cover 20 percent (Article 20). If the check made by competent authorities states that relevant commodities or products are not in conformity with the Regulation, the operator or trader has to apply corrective action, this may go from rectifying documents to the destruction of the relevant commodity or product, as well as the process of withdrawing or recalling the articles (Article

22). In case the operator or trader doesn't attend the necessary measures required by the competent authorities the penalties can be: a) fines proportionate to the environmental damage, economic damage for local communities, and the value of the relevant commodities or products concerned; b) confiscation of the relevant commodities and products concerned, as well as revenues gained from the transaction; c) obligation to restore the environment and/or to compensate for any damage done that would be avoided by the exercise of due diligence; d) temporary exclusion from public procurement processes, and from access to public funding, including tendering procedures, grants, and concessions; e) prohibition from the use of the simplified due diligence; f) going as far as "temporary or permanent prohibition from placing or making available relevant commodities and products on the Union market, or exporting them, in the event of a serious infringement or of repeated infringements" (Article 23). To help in the implementation of this regulation, the Commission should provide technical support to the Member States in order to assist them in carrying out the requirement sets (Article 14).

The Regulation established a number of different approaches to ensure the non-placement of embodied deforestation commodities and products in the EU Market. To ensure the efficiency of the due diligence process, a risk assessment and mitigation have to be done by the operators. One of the risk assessment criteria is regarding the relation to the country of production and origin such as level of corruption, documents and data falsification, history of conflict or sanctions by the UNSC¹⁰ or the CEU, and lack of law enforcement (Article 10). The risks are based mostly on deforestation processes in the location of the production and the possibility of forgery of documents that could compromise the initiative's objective, which is to eradicate embodied deforestation in the European Union market. Besides that, a benchmarking system was designed with three categories of countries — low, standard, and high risk. The criteria to determine the risk level will be: a) rate of deforestation,

¹⁰ United Nations Security Council

forest degradation, forest conversion and of agricultural land for relevant commodities; b) production trends of relevant commodities and products; c) cover of emissions and removals from agriculture, forestry, and land use in the nationally determined contribution (NDC) to the UNFCCC; d) agreements and other instruments concluded between the country and the Union that addresses deforestation, forest degradation or conversion and facilitates compliance of relevant commodities and products; e) whether the country concerned has national or subnational laws in place and takes effective enforcement measures to these laws implementation as well as to avoid deforestation, forest degradation and forest conversion; f) meaningful engagement of all relevant stakeholders, including civil society, indigenous peoples and local communities, and the private sector, including micro-enterprises and other SMEs, and smallholders, to tackle deforestation, forest degradation, forest conversion, land rights violations and illegal production; g) whether the country concerned makes relevant data available transparently; h) if applicable, the existence, compliance with, and effective enforcement of, laws protecting the rights of indigenous peoples, local communities and other customary tenure rights holders. A public consultation with interested parties — including particularly indigenous peoples, local communities, smallholders and civil society organizations — shall be included in the assessment of risk level change for a country in the benchmarking system. The obligations for operators and Member States' authorities will vary according to the level of risk that the country of production represents, as was stated before, represented by a simplified due diligence system, as well as by the frequency of mandatory checks made by the competent authorities (Article 27).

Chapter III

The Deforestation-free Regulation pros and cons

The proposal from the European Union was received with different approaches. On one side a large number of entities and NGOs praised the importance of a system where biodiversity and forests are well cared for, contributing to a more sustainable global supply chain and the end of deforestation practices, even large multinationals were welcoming the proposal in the Online Public Consultation. However, a large group also considered the proposal as a defensive trade policy, even though such regulations are present in the World Trade Organization framework, and a number of speakers view the regulation as a matter of "food security". In this section, these allegations will be discussed taking into account other examples of other deforestation-free approaches to assess possible gaps or problems in the regulation and its space for improvement.

3.1. Regulation critics

3.1.1. Defensive Trade Policy

Since the announcement of a deforestation-free regulation, a number of actors have claimed that the policy is another barrier to international trade¹¹. In fact, the existence of a benchmarking system that stipulates the level of risk in different countries or regions may infringe the oldest World Trade Organisation (WTO) law, the General Agreement on Tariffs and Trade (GATT), which determines non-discriminatory trade measures. When countries are classified by their risks, less developed countries may be penalized for not having the same resources as more developed countries and for lower standards on environmental and human rights. However, sustainability certification is within the margin of possible discriminatory

¹¹ CNA debats due diligence impacts in the European Union and United Kingdom for brazilian agribusiness (CNA 2022)

rules for trade, justified according to Article XX GATT, for pursuing a legitimate objective, relating to the conservation of "exhaustible natural resources" or to protect public morals, humans, animals, or plant life, or health (Henn 2020). Transparency will be the most important factor in the benchmarking system, to be in accordance with the WTO laws, if the criteria are not objective based on environmental indicators, the possibility is that the same due diligence for all countries may be in order to ensure a non-discriminatory policy (Duran; Scott 2022). In any case, prohibitions of commodities or products according to different criteria already exist in the EU legislation framework — such as the Regulation 1829/2003 on Genetically Modified Food. In the regulation to prevent, deter and eliminate illegal, unreported, and unregulated fishing, third countries need to issue catch certificates of vessels under their banner, while competent authorities and the Commission control those catch certificates and the monitoring systems. Besides that, the EUTR Regulation already has in place a mandatory due diligence system, suggesting high feasibility for the discussed proposal (EC 2021b).

As stated before in this analysis, the responsibility to reduce carbon emissions has been distributed since the Kyoto Protocol, and the relevance of land-use change on global warming — especially in agriculture — has been discussed for more than a decade. However, deforestation, afforestation, and forest degradation keep growing, no matter how many international agreements and directives States keep signing (FAO 2016, 12-14). The Regulation on deforestation-free policy gives a different perspective to private actors in the fight against climate change and biodiversity preservation, the responsibility to prevent, mitigate and end human rights neglection and human rights abuse will be also addressed to foreign companies — operators and traders as nominated by the regulation (Erixon 2022). Obviously, countries will still have their importance in being responsible for having in place

their legislation and human rights and environmental standards — as the country's legislation is as important for due diligence as the EU guidelines.

To make sure that the regulation is achieving its objectives of reducing EU-driven deforestation and forest degradation, deforestation and forest degradation statistics, as well as agricultural production and trade statistics will be associated with the regulation. To ensure that the regulation minimizes consumption of products coming from supply chains associated with deforestation or forest degradation, as well as to increase EU demand for and trade in legal and "deforestation-free" commodities and products there will be a comparison of EU consumption trends of relevant commodities and products outside the scope and to other regions lacking a similar policy intervention, with trade, sector, agricultural production and consumer price statistics associated with consumer surveys (EC 2021b). As trade statistics are relevant in the measurement of the regulation's effectiveness, the evidence for deciding if the regulation will or will not be used as a defensive trade policy may appear in these results and can be discussed with the actual implementation of the legislation.

3.1.2. World food security and due diligence costs

As part of the Impact Assessment, the European Commission published research results on economic impacts for each actor in the supply chain when due diligence is imposed. For citizens or consumers there will be a minimal increase in the price of products, and the cost increase will be lower for "low risk" products than for "high risk" products. For business, the direct cost will be regarding the due diligence system (DDS), estimated from 158 to 2,354 million euros per year. Small and Medium enterprises (SMEs) might be disproportionately affected by this cost, the alternative proposed by the EU in this case, as stated before, was the simplified DDS for products derived from low-risk countries. Lastly, the impact on third countries is the possibility of changes in trade flow, they can also be affected by additional

costs on producers passed to operators and traders, as well as costs of required DDS and environmental compliance that can be carried down to the supply chain (EC 2021b).

With these costs in mind, the EU's ability to have foreign companies comply with their regulation is entirely based on the importance of the European market to these companies, not only as a consumer but as a supplier — keeping in mind that the legislation also covers exported products — making the regulation an important part of a new compliance framework for a number of companies in the world (Erixon et al. 2022). As a major percentage of relevant commodities and products that are regulated by this new policy are produced in developing countries that don't have the required environmental and labor standards by due diligence criteria, there will be impacts that are not mentioned in the impact assessment but are implied: 1. the preference of non-compliance countries to sell to other regions where due diligence rules are not in place or less stringent; or 2. the establishment of according standards. In the first case, the possibility of retaliation exists, as well as the shutdown of trade with high-risk countries (Erixon 2022). The second impact represents a regulation consequence that goes beyond the EU-specific market and has great potential to create sustainable standards for entire supply chains.

In that matter, a deforestation-free supply chain raises questions regarding food security in a world with a growing population. According to the traditional theory, global agricultural production has to expand and double by 2050 to be enough for population increase and dietary transitions (Ray et al. 2013; Tilman et al. 2011 *apud* Bahar 2020). However, case studies in several countries show that the land-use change for agricultural expansion is not strictly necessary to guarantee food security, economic reforms, and market-oriented agricultural policies, with social and environmental safeguards, can help increase productivity without requiring agricultural land expansion (FAO 2016). A different approach also sees the combination of carbon pricing/tax, reforestation/plantation, no deforestation policy, crop yield improvement, waste reduction, and changes towards a less energy-intensive diet as effective in mitigating agricultural expansion, by this approach there is a 32% chance to feed the global population without destroying forests (Bahar 2020). In any case, none of these approaches can be feasible without the relevant support of policymakers.

3.2. Benefits of a deforestation-free regulation

As stated before, the regulation for deforestation-free products aims to address three major environmental challenges: a) Biodiversity decline; b) emissions from land-use and land-use change resulting in climate change; and c) livelihoods of vulnerable people who rely heavily on forest ecosystems, such as indigenous peoples (EC 2019, 1). These are the fundamental benefits of the regulation: the maintenance of biodiversity — as the Convention on Biological Diversity addressed before; the reduction of emissions from LULUCF and consequently climate change mitigation — as discussed in documents under the UNFCCC resolved; lastly, the preservation of forest ecosystems part of the livelihood of vulnerable people — also addressed in the Convention on Biological Diversity. These are themes discussed since the 90s and, as complex and interconnected issues, they required more than simple acts to be resolved, they required complete transformation in the supply chains, as the regulation proposes. The European region has also a major capacity to halt deforestation, an objective globally agreed upon, that can be achieved with the relevance of the European market for embodied deforestation products (Duran, Scott 2022).

The European Union, as a relevant actor in Climate Change Governance, puts in perspective the responsibilities of each actor in the supply chain, as others have been acting with certificated labels and ensuring human rights and environmental standards, this regulation sets a new level of requirements not only for companies but also for countries — which are included in the impact assessment for a reason. To drive the systematic change that the challenges offer, buyers must be concerned beyond their own deforestation-free supply,

having in mind also their suppliers, and this way integrating all actors in the environmental and labor standards expected by the regulation (Bellfield et al 2022).

Lastly, the regulation has the potential to positively affect a number of supply chains and to reduce significantly deforestation of not only forests as the FAO definition but other natural habitats that struggle with the enlargement of agricultural frontiers, thanks to the enlargement of the primary scope proposed by the European Parliament. The results of the regulation, however, still have to pass through empirical studies not only in different supply chains but also in different regions, to ensure that the regulation leads to concrete changes in human rights and environmental protection (Schilling-Vacaflor; Lenschow 2021).

3.3. Deforestation-free supply chains example: Soy Traceability

To guarantee a deforestation-free supply chain, traceability — or "the ability to access any or all information relating to that which is under consideration, throughout its entire life cycle, by means of recorded identifications"¹² — is an important tool. A study analyzing the actual compliance with deforestation-free standards in the European market — European Soy Monitor report — estimated that only 13 percent of all soy consumed in Europe in 2017 could be labeled as deforestation-free (Hinkes; Peter 2020). In 2019, that number increased, but remained 23 percent (IDH 2021, 3). The European Soy Monitor is based in six different deforestation-free certifications — Proterra, RTRS, SFAP non-Conversion, Danube Soy, ISCC soy and CRS/BFA —, they certify the soy as free of any kind of deforestation, based in international criteria and national laws (IDH 2021). However, a significant amount of voluntary labeling regarding deforestation in the soy sector only considers illegal deforestation to certification, a large portion of forest are still being cropped and degraded in these standards. As an exemple, despite the Soy Moratorium — that prohibes soy production

¹² Karlsen et al., 2013; van Rijswijk et al., 2008 apud Hinkes Peter 2020, 1163

in illegally deforested lands since 2008 —, Brazil has lost 9.5 percent of its forest land between 2000 and 2014 (Kusumaningtyas, Gelder 2019).

Although a voluntary labeling initiates change in the soy supply change, their standards are still insufficient, especially if the traceability aspect is neglected. The soy supply chain is as long as it is complex, traceability it's a tool to ensure that information on product and process characteristics does not get lost in this large deforestation-risk commodity (Hinkes, Peter 2020). The due diligence system in discussion in the European Union gives all the relevant commodities this capacity of being traceable and may guarantee in the long run positive impacts in an important amount of supply chains across the globe.

As far as positive impacts and benefits for a deforestation-free supply change on soy supply chain, a large number of papers analyze the impact of deforestation in the soy supply chain as a negative result, however, when distressing about *deforestation-free* supply chains the major positive impact register concerns nature restoration and preservation (Unilever [2022]). Nevertheless, other supply chains such as cocoa, register positive influence also in the livelihood of traditional communities when a sustainable production of the commodity is established (Ivanova et al. 2020). Actual benefits, as stated before, will still have to be studied and researched, but economic positive impacts are less likely in the short term, it's important to say. The objective of a deforestation-free supply chain concerns environmental and social positive impacts, in the long term influence on a sustainable economy and a sustainable world, capable of offering better livelihoods, better health systems and less climate change impacts than the current predictions.

Conclusion

The proposal made by the commission was ambitious, the text approved by the Parliament is even bolder. It implies a major change in a great number of commodities and products in the European market and earlier than before. *Deforestation-free* for the EU now means production on lands that *have not been subject to deforestation, and have not induced or contributed to forest degradation or forest conversion after 31 December 2019* (EP 2022d, 59). The definition is still not a hundred percent clear, as was expected for some actors (Li et al. 2022) but it brang a different concept of *forest conversion* and the broadness of natural habitats that are covered under the regulation, making the protection of *only trees* unlikely (Henn 2021). The text adopted by the Parliament also calls for more transparency in the process made under the due diligence system, as well as in the implementation and construction of important mechanisms in the regulation, such as the benchmarking and risk assessments (EP 2022d).

The impacts of this new regulation on specific markets, such as Latin America, can be measured or evaluated with other tools and in a more particular analysis, having in mind that almost 70 percent of deforestation in the region within a decade (2000-2010) is related with commercial agriculture, particularly in the Amazon, production of cattle, soybean and oil-palm destined for international markets is directly related to deforestation in the biome since 1990 (FAO 2016, 20). Since the signing of the EU-Mercosur free trade agreement, deforestation and forest degradation — especially for the Amazon region — is a constant challenge for the implementation. The deforestation-free products regulation, as approved by the Parliament, mentions specifically this agreement to discuss trade policies under a EU market towards free of deforestation, calls the inclusion of binding and enforceable sustainable development chapters that respect the Paris Agreement, the 2030 Agenda and human rights; and makes the Commission responsible to include legally binding and

enforceable provisions *including illegal logging-related and anti-corruption provisions*, to prevent deforestation and forest degradation and ecosystem destruction and degradation in *all* future trade and investment agreements. The text adopted also calls for cooperation with countries assessed as standard or high-risk in order to prevent unnecessary restriction to trade, an *equalizer* in the regulation (EP 2022d).

As is written in the introduction, this is not a perfect legislation, its implementation and further analysis on actual benefits from a deforestation-free supply chain are key to understanding what are the impacts of sustainable consumption in a large, diverse and international trade network. The investigation of positive reduction of embodied deforestation on the European Union Market and the impact of deforestation reduction of its major trade partners of commodities and products under the regulation are important places to start.

It's important to highlight that the deforestation-free regulation in the EU is not isolated from other proposals. The United Kingdom has a similar law to reduce embodied deforestation in their own market, the Environmental Act of 2021, which prevents the use of forest risk commodity or derived product in commercial activities unless there is compliance with relevant local laws (Sarmiento; Oeschger 2022). Lyu Jun, the Chairman of COFCO (China Oil and Foodstuffs Corporation), one of Asia's leading agribusiness groups, has already made a call for a more sustainable supply chain in Chinese agribusiness (Jun 2019). To construct deforestation-free supply chains and *save* the forests and natural biomes that we still have is possible, but it's even more necessary. The EU has taken the first step, and may create a new standard for others to follow.

References

- Bellfield, Helen; Gardner, Toby; Reis, Tiago; West, Chris. Strengthening the EU regulation on deforestation-free products. Trase: Intelligence for sustainable trade. March 2022.
- Breidenich, Clare et al. The Kyoto Protocol to the United Nations Framework Convention on Climate Change. The American Journal of International Law, Vol. 92, No. 2, p. 315-331. 1998.
- CDB. 2010. Decision adopted by the Conference of the Parties to the Convention on Biological Diversity at its tenth meeting. The Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets. 2010. https://www.cbd.int/doc/decisions/cop-10/cop-10-dec-02-en.pdf.
- CDB. 2011. Nagoya protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization to the convention on biological diversity. 2011. https://www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf.
- CDB. 2020. Definitions. Cbd.int. 2020. https://www.cbd.int/forest/definitions.shtml.
- CDB. 2022. Preparations for the Post-2020 Biodiversity Framework. Cbd.int. 2022. https://www.cbd.int/conferences/post2020
- CEU. 2022. General approach. Draft Regulation of the European Parliament and of the Council on the making available on the Union market as well as export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010. https://data.consilium.europa.eu/doc/document/ST-10284-2022-INIT/en/pdf
- CNA. 2022. CNA Debate Impactos Da Diligência Devida Na União Europeia E Reino Unido Para O Agro Brasileiro. Confederação Da Agricultura E Pecuária Do Brasil (CNA). August 31, 2022. https://cnabrasil.org.br/noticias/cna-debate-impactos-da-diligencia-devida-na-uniao-eur opeia-e-reino-unido-para-o-agro-brasileiro.
- Duran, Gracia Marín; Scott, Joanne. 2022. Regulating Trade in Forest-Risk Commodities: Two Cheers for the European Union. Journal Of Environmental Law, 18 February 2022, 34, 245–267

- EC. 2019. Communication from the commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the regions Stepping up EU Action to Protect and Restore the World's Forests. Brussels, 23.7.2019 COM(2019) 352 final
- EC. 2020a. "Commission Launches Global Cooperation Platform to Fight Deforestation." Environment.ec.europa.eu. Accessed September 25, 2022. https://environment.ec.europa.eu/news/commission-launches-global-cooperation-platfor m-fight-deforestation-2020-10-02_en.
- EC. 2020b. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the regions. Commission Work Programme 2021. Brussels, 19.10.2020. COM(2020) 690 final.

https://ec.europa.eu/info/sites/default/files/2021_commission_work_programme_en.pdf

- EC. 2021a. Proposal for a Regulation of the European Parliament and of the Council on the making available on the Union market as well as export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010. Brussels, 17.11.2021 COM(2021) 706 final 2021/0366 (COD)
- EC. 2021b. Commission Staff Working Document Impact Assessment: minimising the risk of deforestation and forest degradation associated with products placed on the EU market. Brussels, 17.11.2021. SWD(2021) 326 final.
- EP. 2020. European Parliament resolution of 22 October 2020 with recommendations to the Commission on an EU legal framework to halt and reverse EU-driven global deforestation (2020/2006(INL)). https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020IP0285&from =EN
- EP. 2022a. "Climate Change: New Rules for Companies to Stop EU-Driven DeforestationGlobally"www.europarl.europa.eu.July12,2022.https://www.europarl.europa.eu/news/pt/press-room/20220711IPR35009/climate-change-new-rules-for-companies-to-stop-eu-driven-deforestation-globally.
- EP. 2022b. "Minimising the Risk of Deforestation and Forest Degradation Associated with Products Placed on the EU Market | Legislative Train Schedule." European

Parliament.

https://www.europarl.europa.eu/legislative-train/theme-a-european-green-deal/file-defor estation-and-forest-degradation-linked-to-products-placed-on-the-eu-market.

EP. 2022c. Committee report tabled for plenary, 1st reading/single reading. Deforestation Regulation.

https://oeil.secure.europarl.europa.eu/oeil/popups/printsummary.pdf?id=1712601&l=en &t=E

- EP. 2022d. Texts Adopted. Amendments adopted by the European Parliament on 13 September 2022 on the proposal for a regulation of the European Parliament and of the Council on making available on the Union market as well as export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010 (COM(2021)0706 – C9-0430/2021 – 2021/0366(COD)). Brussels, 13.09.2022.
- EP. 2022e. Proposed EU Regulation on Deforestation & Forest Degradation. Understanding the impact of excluding other ecosystems.
- Erixon, Fredrik; Guinea, Oscar; Lamprecht Philipp; Sharma, Vanika; Montero, Renata Zilli. 2022. The New Wave of Defensive Trade Policy Measures in the European Union: Design, Structure, and Trade Effects. ECIPE Occasional Paper. 04/2022.
- Ferrer, Marthe de. 2021. "Ending Deforestation by 2030: Landmark Deal or Rerun of Past Failures?" Euronews. November 2, 2021. https://www.euronews.com/green/2021/11/02/over-100-world-leaders-make-landmark-p ledge-to-end-deforestation-by-2030.
- FAO. 2016. **State of the World's Forests 2016.** Forests and Agriculture: Land-use Challenges and Opportunities. Rome.
- Fyson, C. L.; Jeffery, M. L. Ambiguity in the land use component of mitigation contributions toward the Paris Agreement goals. Earth's Future, 7, p. 873–891. 2019.
- Gupta, Joyeeta. 2010. John Wiley & Sons, Ltd. WIREs Clim Change Volume 1, September/October 2010, p. 636–653. DOI: 10.1002/wcc.67
- Henn, Elisabeth V. 2021. **Protecting forests or saving trees?** The EU's regulatory approach to global deforestation. Review of European, Comparative & International

Environmental Law published by Wiley Periodicals LLC. 03 September 2021. https://onlinelibrary.wiley.com/doi/full/10.1111/reel.12413

- Hinkes, Cordula; Peter, Günter. 2020. Traceability matters: A conceptual framework for deforestation-free supply chains applied to soy certification. Sustainability Accounting, Management and Policy Journal Vol. 11 No. 7, 2020 pp. 1159-1187.
- IDH. 2019. European Soy Monitor: Insights on the European uptake of responsible and deforestation-free soy in 2019. https://www.idhsustainabletrade.com/uploaded/2021/06/2019-IDH-European-Soy-Moni tor-report.pdf
- Intergovernmental Panel on Climate Change (IPCC). 1990a. **The Climate Change**: Impacts Assessment of Climate Change. https://www.ipcc.ch/site/assets/uploads/2018/03/ipcc_far_wg_II_full_report.pdf. Access in: 30 June 2022
- Intergovernmental Panel on Climate Change (IPCC). 1990b. **The Climate Change**: The IPCC Response Strategies. https://www.ipcc.ch/site/assets/uploads/2018/03/ipcc_far_wg_III_full_report.pdf Access in: 30 June 2022
- Intergovernmental Panel on Climate Change (IPCC). 2000.Special Report on Land Use,LandUseChange,andForestry(SR-LULUCF)https://www.ipcc.ch/site/assets/uploads/2018/03/srl-en-1.pdf
- Ivanova Y; Tristán M; Romero M; Charry A; Lema S; Choy J; Vélez A; Castro-Núñez; Quintero M. 2020. Moving towards a deforestation-free cacao and chocolate value chain with low greenhouse gas emissions. CIAT Publication No. 502. International Center for Tropical Agriculture (CIAT). Cali, Colombia. 136 p..
- Jun Lyu. 2019. We can feed the world in a sustainable way, but we need to act now. World Economic Forum. Jan 24, 2019. https://www.weforum.org/agenda/2019/01/we-can-feed-the-world-in-a-sustainable-waybut-we-need-to-act-now/
- Kusumaningtyas, Retno; Gelder, Jan Wilem van. 2019. Setting the bar for deforestation-free soy in Europe: A benchmark to assess the suitability of voluntary

standard systems. Amsterdam, The Netherlands. 7 June 2019 https://www.profundo.nl/download/iucn1906

- Leahy, Sinead; Clark, Harry; Reisinger, Andy. 2020. Challenges and Prospects for Agricultural Greenhouse Gas Mitigation Pathways Consistent With the Paris Agreement. Front. Sustain. Food Syst. 4:69. doi: 10.3389/fsufs.2020.00069
- Leggett, Jane A. The United Nations Framework Convention on Climate Change, the Kyoto Protocol, and the Paris Agreement: A Summary. Congressional Research Service. 2020.
- Li, Bo; Schneider, Tina; Stolle, Fred; Veldhoven, Stientje van. How a New EU Regulation Can Reduce Deforestation Globally. World Resources Institute. April 5, 2022. https://www.wri.org/insights/eu-deforestation-regulation?utm_source=twitter&utm_med ium=forestlegality&utm_campaign=socialmedia&utm_term=97cf493c-80ee-4e57-b34d -8b5ce4193c1c
- Sarmiento, Florencia; Oeschger, Andreas. Due Diligence Requirements to Tackle Deforestation: An overview of the EU and British proposals. International Institute for Sustainable Development (IISD). June 7, 2022.
- Schalamadinger B., et al. A synopsis of land use, land-use change and forestry (LULUCF) under the Kyoto Protocol and Marrakech Accords. Environmental Science & Policy, 10, p. 271-282. 2007
- Schilling-Vacaflor, Almut; Lenschow, Andrea. 2021. Hardening foreign corporate accountability through mandatory due diligence in the European Union? New trends and persisting challenges. Corporate accountability through due diligence. Regulation & Governance (2021). doi:10.1111/rego.12402
- Schulze, E. D.; Valentini, R.; Sanz, M. The long way from Kyoto to Marrakesh: Implications of the Kyoto Protocol negotiations for global ecology. Global Change Biology 8, p. 505-518. 2002
- Secretariat of the Convention on Biological Diversity. 2009. **Connecting Biodiversity and Climate Change Mitigation and Adaptation**: Report of the Second Ad Hoc Technical Expert Group on Biodiversity and Climate Change. Montreal, Technical Series No. 41, 126 pages.

- Steffen, Will, et al. **Planetary boundaries**: Guiding human development on a changing planet. Science 347. 2015.
- Tyson, Laura; Mendonça, Lenny. 2020. **Making Stakeholder Capitalism a Reality**. Project Syndicate. Berkeley. Jan 6, 2020. https://www.project-syndicate.org/commentary/making-stakeholder-capitalism-reality-b y-laura-tyson-and-lenny-mendonca-2020-01
- Unilever. 2022. Building a Deforestation-Free Soy Supply Chain in Brazil. Unilever. https://www.unilever.com/news/news-search/2022/building-a-sustainable-deforestationf ree-soy-supply-chain-in-brazil/.
- United Nations (UN). Transforming our World: The 2030 Agenda for sustainable development. 2015. https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for %20Sustainable%20Development%20web.pdf
- United Nations (UN). Report of the United Nations Conference on the Human Environment. 1973. https://digitallibrary.un.org/record/523249/files/A CONF.48 14 Rev.1-EN.pdf
- United Nations (UN). **The Sustainable Development Goals Report 2022**. 2022. https://unstats.un.org/sdgs/report/2022/The-Sustainable-Development-Goals-Report-20 22.pdf
- United Nations (UN). United Nations Framework Convention on Climate Change (UNFCCC). 1992. https://unfccc.int/files/essential_background/background_publications_htmlpdf/applicat ion/pdf/conveng.pdf
- United Nations Framework Convention on Climate Change (UNFCCC), **History of the Convention**. Essential background, [2018]. Available in: https://unfccc.int/process/the-convention/history-of-the-convention#eq-1.
- United Nations Framework Convention on Climate Change (UNFCCC). 1997. Kyoto Protocol. https://unfccc.int/resource/docs/convkp/kpeng.pdf.
- United Nations Framework Convention on Climate Change (UNFCCC). 1998. Bonn Agreement. https://unfccc.int/resource/docs/cop6secpart/107.pdf

- United Nations Framework Convention on Climate Change (UNFCCC). 2015. Paris Agreement. https://unfccc.int/sites/default/files/english_paris_agreement.pdf
- Viola, Eduardo. 2002. O Regime Internacional de Mudança Climática e o Brasil. Revista Brasileira de Ciências Sociais, Vol. 17, nº 50, outubro/2002.
- Viola, Eduardo; Franchini, Matías; Ribeiro, Thaís Lemos. 2012. Climate governance in an international system under conservative hegemony: the role of major powers.
 Revista Brasileira de Política Internacional, 55 (special edition): 9-29