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Comparative policy and legal analysis of product differentiation with a focus on the EU’s approach to illegal fishery products, illegal timber, and unsustainable biofuel

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Jimena Solar*
Urs Baumgartner**

Centre for Development and Environment (CDE), University of Bern*
Ekolibrium**

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Introduction

In the Global North, trade regulation based on “product and production methods” (PPMs) has increasingly been implemented in recent years. A case in point is the European Union (EU), which has an extensive policy and legal practice regarding PPMs. The EU has introduced PPMs in global trade for fishery products, timber, and biofuels. Applied measures differentiate products according to fixed criteria—legality or sustainability, including targets for greenhouse gas (GHG) emissions—which are assessed through certification schemes¹ that determine whether a fishery, timber, or biofuel product is allowed into the EU market or not.

To date, no comparative policy and legal study has addressed PPMs in global agricultural markets. To bridge this gap in international trade law, this working paper provides an in-depth analysis of the approaches adopted by the EU that have shaped trade relations with producer countries in three markets: fish, timber, and biofuel. These markets are presented as case studies. Each case starts with a short description of the corresponding EU consumer markets as well as an introduction to the substantive EU policy and legislative framework. We then elaborate on the implementation of the PPM, analysing criteria selection (legal/illegal and sustainable/unsustainable, including targets for GHG emissions) and discussing the established certification schemes, such as the illegal, unreported, and unregulated (IUU) catch certificate, Forest Law Enforcement Governance, and Trade (FLEGT) licence scheme, and third-party certifications. The case studies conclude with a critical review of the implemented PPM by covering the various, and sometimes underperformed, commitments of the EU, such as market incentives, public procurement policies, and international cooperation flows.

¹ Also known as licence scheme, referring to a paper-based or electronic document that verifies that a product meets relevant national laws of the producing country and partnership agreements with the EU.

1. Case study: Fish

1.1. The market of fish and fishery products

With a total consumption of 12.5 million tonnes in 2018, the EU fish market is the world's largest. While consumption varies greatly across countries, average per capita consumption is around 24kg yearly². However, although the EU is an important fish producer, it cannot meet EU consumer demand on its own, be it in terms of volume or species diversity³. At the same time, the EU is also a substantial exporter of fish, making it the world's largest trader in fish products.

Imports from third countries are crucial, as they accounted for more than 60% in recent years, with a slightly increasing trend. Because of this dependency on fish imports from and trade with third countries, measures to protect EU marine ecosystems from overfishing are not enough to achieve sustainable fish consumption. Realising this challenge, the EU has taken a leading role in implementing control mechanisms for fish imports that aim at curbing IUU fishing practices along all affected value chains.

1.2. Fish and fishery products in international and EU law and policy

1.2.1. International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU)⁴

The International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU) is a voluntary instrument developed within the framework of the Code of Conduct for Responsible Fisheries with the objective to prevent, deter, and eliminate IUU fishing.

This plan acknowledges the right of states to implement market-related measures in fish and fishery products to examine whether they have been sustainably harvested. Among others, proposed measures include multilateral catch documentation and certification requirements, which according to the plan should be standardised and, where possible, electronic with the aim to facilitate trade and assure effectiveness while reducing possibilities for fraud.

The IPOA-IUU has a strong emphasis on World Trade Organization (WTO) rules and consultation between states. Trade-related measures shall never be unilateral and should only be used in exceptional circumstances, where other measures have proven unsuccessful or are unilateral. Measures need to be fair, transparent, and non-discriminatory. This plan also includes special consideration for developing countries.

² EUMOFA (2021). The EU fish market, <https://www.eumofa.eu/the-eu-market> (accessed on 19 May 2021).

³ AIPCE-CEP, Finfish Study 2019, Brussels, December 2019, p. 12 and 14.

⁴ It was adopted on the 23 June 2001.

Whereas the IPOA-IUU aims at addressing the challenge of IUU fishing from an encompassing perspective, assigning responsibilities to all states—including flag states⁵—and to operations all along the value chains, it recognises that some forms of unregulated fishing may take place without attracting measures under the IPOA-IUU and without violating international law (Article 3.4 of the IPOA-IUU).

1.2.2. The EU's Common Fisheries Policy (CFP) and the Common Market Organisation (CMO) Regulation for fish and fishery products

The main objective of the Common Fisheries Policy (CFP) is the conservation of marine resources. To this end, the corresponding policy regulates fisheries management in EU waters and international and bilateral fisheries relations. As one of the CFP's pillars, the Common Market Organisation (CMO) Regulation⁶ lays down general principles for marketing fish. These include the need for production information being mandatory before placing fish products on the market and applies to products from within the EU as well as to imports.

1.2.3. The Community Action Plan for the eradication of illegal, unreported, and unregulated fishing (2002)

The EU has played an important role in constituting the IPOA-IUU. As a key contributor to the elaboration of the IPOA-IUU, the EU has taken actions to implement appropriate measures shortly after its publication.

The Community Action plan for the eradication of IUU fishing identifies points of action for the successful implementation of commitments to eliminate it. These actions include discouraging EU members from using foreign flags, supporting international actions for fish stock management, controlling and reducing activities associated with IUU fishing, and propagating information related to the impacts of IUU fishing to the fishing industry, consumers, and the public.

Apart from these actions at community level, the plan also seeks to reduce IUU fishing by supporting the implementation of measures in regional fisheries organisations and at international level. Following considerations under the IPOA-IUU, the plan foresees to support developing countries with technical and financial assistance for the monitoring, control, and surveillance of fishing activities through corresponding partnerships.

1.3. The applicability of the PPM (IUU catch certificate)

1.3.1. Legality as the criterion of differentiation

Implementing the CFP and acknowledging that IUU fishing activities in non-EU countries may harm its

⁵ States under which so-called 'flag of convenience' vessels operate.

⁶ Regulation (EU) No 1379/2013 of the European Parliament and of the Council of 11 December 2013 on the common organisation of the markets in fishery and aquaculture products, amending Council Regulations (EC) No 1184/2006 and (EC) No 1224/2009 and repealing Council Regulation (EC) No 104/2000.

objectives, the Community Action plan for the eradication of IUU fishing represents a key element in the control of fish trade with non-EU members. To determine which fish and fishery products may or may not enter its market, the EU uses the criterion of legality, based on the argument that international conservation and sustainable management of fisheries resources require the legality of fish products as a basic need. As illustrated in Table 1, the legality criterion is applied in various legal instruments.

Table 1: Typology of the EU legislative framework in fish and fishery products linking market access to compliance with the legality criterion

Laws and regulations	Scope	Key provisions
The Council Regulation to prevent, deter, and eliminate IUU fishing (EC) No. 1005/2008 (IUU Regulation) 29 September 2008	Establishes a community system to prevent, deter and eliminate IUU fishing to ensure that fish and fishery products imported into the EU do not originate from IUU fishing	Puts in place a certification scheme (catch certificate) demonstrating the legality of all the traded fish and fishery products as a requirement for their entrance into the EU internal market, considering the capacity constraints of developing countries for its implementation (Articles 12 and 20)
The Commission Regulation (EC) No. 1010/2009 laying down detailed rules for the implementation of the Council Regulation (EC) No. 1005/2008 (IUU Implementing Regulation) 29 January 2009	Complements the IUU Regulation by introducing provisions applicable to small-scale fisheries and guidelines to apply a community risk criterion	Makes a simplified catch certificate system available for small-scale fisheries (Article 6). It states that verifications shall be focused on risks of a vessel, or a vessel owner, being or having been involved in IUU fishing activities (Article 31)
The Council Regulation (EC) No. 1224/2009 establishing a community control system for ensuring compliance with the rules of the common fisheries policy, amending Regulations (EC) No 847/96, (EC) No 2371/2002, (EC) No 811/2004, (EC) No 768/2005, (EC) No 2115/2005, (EC) No 2166/2005, (EC) No 388/2006, (EC) No 509/2007, (EC) No 676/2007, (EC) No 1098/2007, (EC) No 1300/2008, (EC) No 1342/2008 and repealing Regulations (EEC) No 2847/93, (EC) No 1627/94 and (EC) No 1966/2006 20th November 2009	Applies to all activities covered by the CFP	Institutes a system for the control, inspection, and enforcement in fisheries at community level by ensuring that all fisheries and aquaculture products shall be labelled and traceable at all stages of production, processing, and distribution (whole value chain) (Article 58)
The Commission Regulation (EU) No. 86/2010 amending Annex I to Council Regulation (EC) No. 1005/2008 and amending Commission Regulation (EC) No. 1010/2009 as regards exchange of information on inspections of third country vessels and administrative arrangements on catch certificates 29 January 2010	Amends Annex I of the IUU Regulation	The European Commission has decreed a detailed list of excluded products, and it will be amended on an annual basis (Article1)

The IUU Regulation has not set a definition for fish product legality. Instead, it defines 'IUU fishing' and prohibits the importation of fish and fishery products obtained from IUU fishing (Article 12). This can entail three categories of unwanted fishing practices, defined as (Article 2):

- Illegal fishing: *without the permission of the corresponding state, or in contravention of its laws and regulations; in contravention of the conservation and management measures; or in violation of national laws or international obligations*
- Unreported fishing: *not reported or misreported catches to the relevant national authority or the relevant regional fisheries management organisation (RFMO)*

- Unregulated fishing: *conducted in an RFMO by fishing vessels without nationality or those flying the flag of a state not party to that organisation; fishing activities not consistent with the conservation and management measures of that organisation; fishing activities conducted in areas or for fish stocks without conservation or management measures in a manner that is not consistent with the conservation of living marine resources under international law.*

1.3.2. Scope of products covered and proof of differentiation

The IUU catch certificate applies to all imports of marine fishery products, processed or not, into the EU and exports from the EU to third countries. It includes fishery products that have been transported or processed in a country other than the flag state (paragraph 16 of the Preamble of the IUU Regulation).

Fishery products are understood as any products that fall under Chapter 03 and Tariff headings 1604 and 1605 of the Combined Nomenclature established by Council Regulation (EEC) No 2658/87. The exceptions are the products listed in Annex I of the IUU Regulation, namely aquaculture obtained from fry or larvae, ornamental fish, freshwater fish, mussels, snails, and other minor marine products (Article 2, paragraph 8 of the IUU Regulation and Commission Regulation (EU) No. 86/2010).

To ensure that no IUU fishing products enter the EU market, the EU requires fish products to be accompanied by a catch certificate validated by the flag state⁷ of the fishing vessel or fishing vessels that made the catches. Validation must be carried out by the competent public authority within the flag state (Article 12 of the IUU Regulation).

The catch certificate is thus mandatory for fishery products to access the EU market. In that sense, the European Commission (EC) recognises that the catch certification scheme is an essential part of the IUU Regulation, which will improve traceability of all fishery products traded with the EU and facilitate the control of their compliance with conservation and management rules, in cooperation with third countries⁸.

Annex II of the IUU regulation lists the minimal information that must be contained in a catch certificate for the latter to be acceptable. This includes information on the fishing vessel (vessel name, fishing licence number, flag state, and home port), description of the product (species, catch areas and dates, estimated weight, and verified landed weight), and responsibilities (master of fishing vessel, flag state authority). In addition, information on transshipments need to be added if applicable. At the time of importation into the EU, the importer needs to complement the certificate with their information, and the competent authority of the importing country needs to validate the authenticity of the document.

The acceptance of a catch certificate by EU authorities requires that the flag state notify the EC on national arrangements that ensure implementation, control, and enforcement of conservation and management measures and to which fishing vessels must abide. Flag states are also required to

⁷ According to the European Commission, Flag State refers to *the country in which the fishing vessel is registered*.

⁸ European Commission, EC Regulation 1005/2008 to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated (IUU) Fishing, Technical Note, p. 1.

demonstrate that the competent authorities have the necessary power to carry out checks for verification of the information contained in the catch certificates (Article 20, paragraph 1 of the IUU Regulation).

Since information on fish harvesting as requested under the IUU regulation might be understood as a technical barrier to trade, the regulation places a high importance on cooperation with third countries and simplification of information exchange. In line with the IPOA-IUU, the IUU regulation mentions electronic means as a viable alternative to paper-based processes.

The provision of an electronic documentation process also aims at addressing problems with fake certificates that may result from insufficient scrutiny by fishery enforcement or customs officials in producing countries, who are regularly understaffed, under-resourced, or may have different priorities⁹. To facilitate information exchange, the EU validates national catch certificates of certain third countries and recognises catch documentation schemes adopted by RFMOs when validated and if they meet all the conditions of the regulation. In addition, cooperation shall also entail mutual assistance to establish an automated information system on IUU fishing activities (Article 51 of the IUU Regulation). In practise, its realisation occurred with the approval of the CATCH on 7 May 2019 as a voluntary IT system that seeks to digitise the paper-based EU catch certification scheme to support the issuance, control, and verification of official documents and to automate the procedures under the IUU regulation¹⁰.

It is also important to acknowledge that the TARIC (TARif Intégré Communautaire; Integrated Tariff of the European Communities)¹¹ establishes that import of fish and fishery products is allowed after control of the IUU catch certificate¹². However, the IUU catch certificate does not exempt the presentations of other certificates, such as health and origin certificates, which all must include consistent information to enable EU market access¹³.

1.3.3. The incorporation of the PPM in bilateral agreements

A key provision of the United Nations Convention on the Law of the Sea (UNCLOS) is the recognition of coastal states' sovereignty rights over natural resources and related economic activities within their 200-nautical mile exclusive economic zone (EEZ). Because of this, the EU recognised the need to conclude bilateral agreements with third countries when seeking access for its fleets to fish stock surplus that are not exploited by the corresponding coastal states¹⁴.

⁹ Institute for European Environmental Policy, An Independent review of IUU Regulations. A Report funded by the OAK Foundation, 2 December 2011, p. 17-18.

¹⁰ European Commission, CATCH – Information Note, p. 1.

¹¹ Integrated Tariff of the EU – a multilingual database integrating all measures relating to EU customs tariff, commercial and agricultural legislation.

¹² For further information, see: https://ec.europa.eu/taxation_customs/dds2/taric/measures.jsp?op=&MeasText=&Lang=en&StartPub=&Offset=0&Area=MA&GoodsText=&Taric=0302410010&La (accessed on 28 February 2022).

¹³ Blaha, F., EU Market Access for Fishery and Aquaculture Products, Switzerland Global Enterprise, April 2015, p. 15.

¹⁴ European Commission, The Common Fisheries Policy (CFP), Bilateral agreements with countries outside the EU, Historical and legal context of the bilateral agreements, https://ec.europa.eu/fisheries/cfp/international/agreements_en (accessed on 28 February 2022).

These agreements traditionally have two types of non-EU counterparts: (1) northern agreements with countries such as Norway, Iceland, and the Faeroe Islands for joint management of shared fish stocks, and (2) the Sustainable Fisheries Partnerships Agreements (SFPAs), by which developing countries grant fishing rights to EU fleets in return for financial compensation and support in the form of technical assistance. While SFPAs were purely commercial in the sense that the EU paid access fees for extending its fishing grounds by subsidising its fishing industry in the past (Zimmermann 2017), over time SFPAs have become a tool to contribute to sustainable management of marine resources. The EU has progressively shifted the focus of these agreements by including environmental concerns (Witbooi 2008, 2012) and demands for better conditions for local fishing communities, including non-commercial clauses concerning human rights (Depypere 2011).

According to the Directorate-General for Maritime Affairs and Fisheries (DG MARE)¹⁵, today SFPAs “ensure equal rules, scientific management and social empowerment”. Environmental sustainability, local growth, and shared accountability are listed as important aspects of such agreements. To this end, the fight against IUU fishing plays an important role for which the SFPAs integrate various means and tools, such as training and advice for capacity-building purposes and support with monitoring, control and surveillance actions, including the establishment of electronic catch reporting systems.

1.3.4. A critical review of the PPM

The IUU regulation, which by some experts has been labelled “the most ambitious law of its kind globally”¹⁶, has achieved various improvements in fisheries worldwide. It has helped to drive fisheries reforms and has pushed flag states to strengthen compliance with international obligations. While several examples underline the positive effects of the regulation, experts have identified shortcomings as well.

It has been observed that implementing the catch certificate scheme as an obligation for fulfilling traceability along value chains bears significant costs. Third countries with poor resources, particularly developing countries, therefore struggle with meeting the requirements regarding monitoring and control of fishing activities. This has led to criticism of the EU catch certificate by some of the affected countries who perceive it as an administrative barrier to entering the EU market that results in additional access costs¹⁷.

Within the EU it has also been observed that implementation of the IUU regulations varies significantly across member states. As member states are free to define how they monitor compliance, enforcement is not equal throughout the union. Only six countries are responsible for importing nearly three-quarters of all EU fish imports. This has led to the inability of some national authorities to cope with verifying compliance of imported goods with EU law. Lack of coordination and data sharing across countries also enables importers to use the same paper-based catch documents for several imports¹⁸.

¹⁵ European Commission, the Directorate-General for Maritime Affairs and Fisheries, EU sustainable fisheries partnership agreements, 2020, DOI 10.2771/562370.

¹⁶ Janovsky, J. (2018). EU Fights Illegal Fishing, One Card at a Time. PEW Trust, <https://www.pewtrusts.org/en/research-and-analysis/articles/2018/08/01/eu-fights-illegal-fishing-one-card-at-a-time> (accessed on 19 May 2021).

¹⁷ Tsamenyi, M., Palma, M. A., Milligan, B., and Mfodwo, K. (2010) The European Council Regulation on IUU, *The International Journal of Marine and Coastal Law* (25), p. 22.

¹⁸ Environmental Justice Foundation (EJF), Oceana, The Pew Charitable Trusts and WWF, Improving performance in the fight against illegal, unreported and unregulated (IUU) fishing, Case studies highlighting the need for improved implementation of the EU IUU Regulation Catch Certificate (CC) Scheme, January 2017, <https://imsehawaii.org/2021->

Consequently, significant amounts of IUU products have entered the EU market despite the EU's IUU regulation being in place¹⁹.

Due to the existence of corruption in fisheries, potential inconsistencies between reported activities in the form of a catch certificate and the reality on the ground are possible. Yan and Graycar (2020), who explored corruption in fisheries from a conceptual perspective, found that since IUU activities and corruption may go hand in hand, the problem of illegal fishing activities cannot be solved through the introduction of new administrative obligations in the form of a catch certificate. Synthesising existing evidence of corruption in fisheries, they found that corruption is usually high in countries that are known for a high share of IUU activities. The authors argue that, in contrast to many Western countries, corruption in these countries is endemic and enshrined in cultural and societal structures. As evidence from Lake Victoria and South Africa suggests, forced transparency in the form of a mandatory catch certificate may not solve the problem of illegal fishing activities in countries where capacities and institutions are weak (Sundström 2015; Etiegni et al. 2017). Rather, it results in increased rent-seeking behaviour. Because IUU fishing and corruption are closely linked but not addressed by the same means in all contexts, introducing administrative means without supporting their correct implementation may even provide additional opportunities for certain stakeholders to gain financially from illegal activities rather than ending them (Nunan et al. 2018). To be solved, they therefore require different approaches than administrative measures that might work in a context of a low level of corruption.

Another flaw of the IUU regulation is that several product categories are excluded from requiring a catch certificate to be marketed in the EU (Annex 1 of the IUU regulation). Some of them are nevertheless subject to intense IUU activity, namely ornamental fish²⁰ and certain freshwater fish. Inland (freshwater) fishery production amounted to 12.5 million tonnes in 2018 (FAO 2020) and many freshwater fish stocks have been reported to be overfished or are under severe pressure due to IUU activities, among others.

Song et al. (2020) identified several shortcomings in the IUU regulation that may negatively affect small-scale fisheries. Perhaps the most significant one is that a non-differentiated use of IUU fishing has led to wrong interpretations of the meaning of IUU fishing, resulting in all fisheries considered as IUU being 'criminalised'. Since small-scale fisheries in developing countries often lack infrastructure and capacity to implement full traceability—in addition to catching fewer fish per boat compared to industrial fisheries—they are quickly labelled as 'illegal', even in the case of meeting all local regulations. There are numerous fisheries that are self-governed and regulated according to customary rules. Through the lens of IUU fishing, they are, however, deemed as unregulated and therefore also categorised in the 'illegality' box. Finally, the authors also identified an ambiguous wording in the definition of 'unregulated' with origin in the IPOA-IUU that results in a fishery being considered unregulated based on the status of the prevailing regulatory system rather than their compliance with it. All these factors may lead to an exclusion of small-scale fisheries from access to the EU market. Considering that small-scale fisheries account for the largest share of fisheries catches destined for human consumption worldwide and that they employ most of the people engaged in global fisheries (FAO 2020), the

library/ewExternalFiles/Improving%20performance%20in%20the%20fight%20against%20illegal%2C%20unreported%20and%20unregulated%20%28IUU%29%20fishing.pdf (accessed on 28 February 2022).

¹⁹ Environmental Justice Foundation (EJF), Oceana, The Pew Charitable Trusts and WWF, The EU IUU Regulation. Analysis: Implementation of EU seafood import controls, March 2017, p. 8-9 and 26, https://wwfeu.awsassets.panda.org/downloads/euiiucoalition_report_iuu_import_controls_report_eng_march2017.pdf (accessed on 28 February 2022).

²⁰ Watson, I. G., personal communication, December 2020.

significance of these observations is important.

Finally, it is crucial to note that ‘legal’ does not mean that products are automatically ‘sustainable’. A great number of fisheries meet the IUU requirements, even though they engage in overfishing, which is clearly not a sustainable practice. The corresponding products may thus be marketed in the EU without restrictions. Furthermore, several fisheries use fishing gear, such as demersal trawls and dredges, that have detrimental effects on important ocean habitats and ecosystems. In contrast to being legal, these production methods are clearly unsustainable. A weakness of the catch certificate in terms of sustainability is therefore also the lack to include the fishing method as a mandatory information. Since many countries do not include this information, importers cannot tell whether the imported products have been produced sustainably based solely on information obtained from the catch certificate. Likewise, a fishery could engage in severe human rights violations but still have all IUU documents (i.e., catch certificate) in place.

2. Case study: Timber

2.1. The market of timber and timber products

In 2019, the EU’s imports of wood and wood furniture amounted to USD 19.3 billion, mainly originating in China, Russia, and the Commonwealth. Tropical wood imports from countries such as Indonesia accounted for only USD 4.4 billion, a slight increase compared to the previous years. The import growth in tropical wood products was mainly driven by wood furniture and to a lesser degree joinery²¹.

2.2. Timber and timber products in international and EU law and policy

2.2.1. International Tropical Timber Agreement (ITTA)²²

The trade-related purpose of the International Tropical Timber Agreement (ITTA) is the expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests (Article 1). ITTA was the first international commodity agreement that incorporated environmental protection provisions²³. The agreement exemplifies that sustainability and legality have been acknowledged as the key interrelated criteria in international timber trade.

2.2.2. The EU Action Plan for Forest Law Enforcement, Governance and Trade (EU FLEGT) (2003)

The EU is a major consumer of wood products from regions where the levels of illegality and poor governance in the forest sector are especially serious²⁴. Conscious of the associated risks and aware of its responsibility to reduce illegal deforestation, the EU introduced the Action Plan for Forest Law Enforcement, Governance and Trade (EU FLEGT), which aims to tackle poverty in timber-producing

²¹ International Tropical Timber Organization / FLEGT Independent Market Monitor, FLEGT VPA Partners in EU Timber Trade 2019, Main Report - November 2019, p. 5 and 66-69, <https://flegtimm.eu/resources/flegt-vpa-partners-in-eu-timber-trade-2019/> (accessed on 25 May 2022).

²² It was signed on 3 April 2006 between potential 36 producer members and 38 consumer members (including the European Union and Switzerland) and it entered into force late 7 December 2011.

²³ Wassermann, U. (1984) UNCTAD: International Tropical Timber Agreement, *Journal of World Trade*, Issue 1, pp. 89.

²⁴ Commission of the European Communities, The EU Action Plan for Forest Law Enforcement, Governance and Trade (FLEGT), Brussels, 21.05.2003, COM(2003) 251 final, p.32, [http://aei.pitt.edu/37750/1/COM_\(2003\)_251_final.pdf](http://aei.pitt.edu/37750/1/COM_(2003)_251_final.pdf) (accessed on 25 May 2022).

countries by strengthening sustainable forest governance and increased trade in legally produced timber²⁵. To achieve this, the EU FLEGT Action Plan proposes the establishment of a licencing scheme for timber imports through the signing of Voluntary Partnership Agreements (VPAs) with EU FLEGT partner countries²⁶.

2.2.3. The EU Forest Action Plan (2006)

In 2006 the European Council (EC) introduced the EU Forest Action Plan, which coordinates forest-related actions and forest policies across member states. The main objective of the plan is to support and enhance sustainable forest management and to strengthen the multifunctionality of forests. The five-year plan (2007 – 2011) recognised economic and development cooperation with non-EU countries as a crucial element and included capacity building as a priority objective for the EC and its Member states²⁷.

2.2.4. The EU Forest Strategy for 2030 (2021)

The EU Forest Strategy for 2030 aims to address key challenges such as forest conservation and climate change and seeks to perpetuate the potential of EU forests in the future. To achieve these avid goals, the strategy is designed according to the subsidiarity principle, best scientific-based information, and data as well as better regulation requirements. The latter aspiration includes a legislative proposal to ensure that wood products sourced from third countries and sold in the EU market contribute to forest protection, restoration, and their sustainable management²⁸.

2.3. The applicability of the PPM (EU FLEGT licence scheme)

2.3.1. Legality as the criterion for product differentiation

With the purpose to differentiate timber and timber products entering its internal market from third countries, the EU instituted the EU FLEGT licencing scheme, which is governed by the legality criterion. Legality as a criterion for product differentiation is included in major legal instruments, as illustrated in Table 2.

²⁵ EFI, FLEGT Team, EFI Policy Brief 2, Forest Law Enforcement, Governance and Trade- the European approach, 2008, <http://www.euflegt.efi.int/documents/10180/23015/EFI+Policy+Brief+2+--+Forest+Law+Enforcement%2C%20Governance+and+Trade/ba48359a-9ae0-4db7-9fd6-18a728b43e0e> (accessed on 25 May 2022).

²⁶ Commission of the European Communities, The Forest Law Enforcement, Governance and Trade (FLEGT), Proposal for an EU Action Plan, p. 12-14.

²⁷ Commission of the European Communities, Communication from the Commission to the Council and the European Parliament on an EU Forest Action Plan, Brussels, 15.06.2006, COM(2006) 302 final, p. 11-12, <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2006:0302:FIN:EN:PDF> (accessed on 25 May 2022).

²⁸ Commission of the European Communities, Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee and the Committee of the Regions, New EU Forest Strategy for 2030, Brussels, 16.07.2021, COM(2021) 572 final, p. 1-3, https://eur-lex.europa.eu/resource.html?uri=cellar:0d918e07-e610-11eb-a1a5-01aa75ed71a1.0001.02/DOC_1&format=PDF (accessed on 25 May 2022).

Table 2: Typology of the EU legislative framework in timber and timber products linking market access to compliance with the legality criterion

Laws and regulations	Scope	Key provisions
The Council Regulation (EC) No. 2173/2005 (FLEGT Regulation) 20 December 2005	Sets rules for timber imports into the EU internal market with the purpose that partner countries implement the EU FLEGT licencing scheme	EU Member states assure that timber products meet the requirements of being legally produced and harvested or imported into the EU FLEGT partner country, according to its national laws and EU FLEGT VPA commitments (Article 2, paragraph 10).
The Commission Regulation (EC) No. 1024/2008 (FLEGT Implementing Regulation) 17 October 2008	Establishes specific rules for the import system of timber and timber products	The competent authorities of the EU Member states may have further mechanisms to notify and to verify whether an EU FLEGT licencing scheme satisfactorily fulfils the requirements for release of free circulation (Articles 6 and 11).
The Regulation No. 995/2010 of the European Parliament and of the Council (EU Timber Regulation - EUTR) 20 October 2010	Focuses on the responsibilities of key actors in the timber value chain: operators and traders	Operators refer to any natural or legal person that places timber and timber products on the EU market for the first time (Article 1 and Article 2, literal c). Traders are understood as a natural or legal person that sells or buys timber and timber products in the EU market (Article 2, literal d). Operators have the obligation to supply the EU internal market with legally harvested timber and, to this end, they shall exercise due diligence measures (Article 4). Traders are responsible for the traceability of timber and timber products along the supply chain, for which they are mandated to keep trade information regarding timber and timber products for at least five years. They are obliged to provide such information to the competent authorities if requested (Article 5).
The Commission Implementing Regulation (EU) No. 607/2012 (EUTR Implementing Regulation) 6 July 2012	Sets specific due diligence obligations for operators and traders, including frequency and nature of monitoring organisations	This stipulates that third-party certification may be considered as part of risk assessment and mitigation procedures applying to all operators (Article 4).
The Regulation (EU) 2019/2010 of the European Parliament and of the Council on the alignment of reporting obligations in the field of legislation related to the environment, and amending Regulations (EC) No 166/2006 and (EU) No 995/2010 of the European Parliament and of the Council, Directives 2002/49/EC, 2004/35/EC, 2007/2/EC, 2009/147/EC, and 2010/63/EU of the European Parliament and of the Council, Council Regulations (EC) No 338/97 and (EC) No 2173/2005, and Council Directive 86/278/EEC 5 June 2019	Improves and facilitates public access to the data provided by the EU Member states on the implementation of both the EU timber legislation and EU FLEGT VPAs	This requests regular monitoring of the implementation of the EU FLEGT Regulation and the EU Timber Regulation, including progress on FLEGT VPAs and their contribution to minimising the presence of illegally harvested timber and timber products in the EU internal market. It also mandates public disclosure of corresponding information (Articles 8 and 9).

It can be derived that the EU FLEGT Regulation sets a broad definition for the legality of timber and timber products, requiring consistency with the national legislation of the EU FLEGT partner country and the VPAs provisions. Meanwhile, the EU Timber Regulation defines ‘legally harvested’ by referring to tenure and harvest rights, forest and harvest management, payments and duties related to timber harvesting, and trade and customs related to the forestry sector (Article 2, literal f, and h). The latter also includes a definition for illegal harvests, which are all harvests “*in contravention to the applicable national legislation in the country of harvest*” (Article 2, literal g).

2.3.2. Scope of products covered and proof of differentiation

The EU FLEGT licence scheme applies to the timber and timber products incorporated in Annexes II and III (Article 2, literal 9 of the EU FLEGT Regulation). These fall under Chapter 44 and HS headings 4403, 4406, 4407, 4408 and 4412.

The EU bans illegally harvested timber and timber products from entering the EU internal market. To this end, it requires affected products from partner countries to be accompanied by an EU FLEGT licence (Article 4 of the EU FLEGT Regulation). This licence is mandatory for all timber and timber products to access the EU market (Article 3 of the EU FLEGT Regulation).

The EU FLEGT licence scheme explicitly refers to a paper-based or electronic document duly issued and validated by a partner country's licencing authority that proves that a shipment is compliant with the requirements of the EU FLEGT Regulation (Article 2, paragraph 5). Nowadays, such licences can be issued electronically thanks to the implementation of the FLEGIT-TRACES system²⁹.

Also, the TARIC requires that imports of timber and timber products are only allowed EU market access after control of the EU FLEGT licence scheme. Nevertheless, this proof does not exempt the presentations of other *erga omnes* attesting documents, such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) certificate³⁰.

2.3.3. The incorporation of the PPM in bilateral agreements

As mentioned in Section 2.2.2, the EU FLEGT Action Plan recommends that the union establishes EU FLEGT VPAs with partner countries. Such VPAs have been signed with Indonesia (to date the only EU FLEGT partner country that has an operating EU FLEGT licence scheme), Ghana, Cameroon, the Central African Republic, Honduras, Guyana, Liberia, the Republic of Congo, and Vietnam. There are also various countries that are currently negotiating EU FLEGT VPAs, for example, Ivory Coast, the Democratic Republic of the Congo, Gabon, Laos, Malaysia, and Thailand³¹.

2.3.3.1. The EU-Indonesia FLEGT VPA

Negotiations for a VPA with Indonesia were initiated in March 2007, and, after years of negotiation, both parties agreed on an overly detailed³² EU FLEGT VPA on 4 May 2011. The EU-Indonesia FLEGT VPA

²⁹ FLEGT Independent Market Monitor, FLEGT IT system for the electronic handling of licences in EU, FLEGT Market News, 11 December 2017, <https://flegtimm.eu/news/flegt-it-system-for-the-electronic-handling-of-licences-in-eu/> (accessed on 25 May 2022).

³⁰ European Commission, TARIC measures information, Indonesia, Goods nomenclature code 4701001000, https://ec.europa.eu/taxation_customs/dds2/taric/measures.jsp?Lang=en&SimDate=20210120&Area=ID&MeasType=&StartPub=&EndPub=&MeasText=&GoodsText=&op=&Taric=4701001000&search_text=goods&textSearch=&LangDescr=en&OrderNum=&Regulation=&measStartDat=&measEndDat= (accessed on 25 May 2022).

³¹ EU FLEGT Facility, VPA Countries in the World, <http://www.flegtlicence.org/vpa-countries> (accessed on 25 May 2022).

³² This issue is criticised by trade experts as an imperfect design of PPMs (Musselli, Irene; Cottier, Thomas; Bürgi Bonanomi, Elisabeth (2021). SECO Roundtable on trade, climate change, and the SDGs, CDE/WTI summary report Bern: SECO, p. 4, https://boris.unibe.ch/164086/1/Report_SECO_Roundtable_on_trade_climate_change_and_the_SDGs.pdf (accessed 16 May 2022).

finally came into force on 1 May 2015. A year later, on 15 November 2016, EU FLEGT licencing started and since then EU FLEGT licences have accompanied all Indonesian timber and timber products for release and free circulation in the EU's internal market³³.

The EU seeks to promote a favourable position for Indonesian timber and timber products in its internal market by adopting market incentives such as public and private procurement policies that favour EU FLEGT-licensed products (Article 13 of the EU-Indonesia FLEGT VPA).

The EU-Indonesia FLEGT VPA aims to provide a legislative framework to ensure that all Indonesia's timber and timber exports entering the EU are legally produced and processed, and by doing so to promote trade in the timber sector (Article 1, paragraph 1 of the EU-Indonesia FLEGT VPA). Likewise, the EU would punish Indonesia if its timber and timber products did not meet the procedures and requirements for the EU FLEGT licence by restricting market access (prohibited imports) (Article 3, numeral 1 of the EU-Indonesia FLEGT VPA).

Legality has been defined based on existing laws and regulations in Indonesia (addressing harvesting rights, forest operations, fees and taxes, other users, and trade and customs), including international agreements such as the CITES (Annex II of the EU-Indonesia FLEGT VPA).

To build consensus on the definition of legality in the forest sector, important reforms in the Indonesian legal system were necessary. These reforms encompassed extensive participation of diverse actors and addressed a series of local-context concerns, for instance the impact on traditional land rights of indigenous minorities, inadequate spatial planning capacity, and widespread corruption³⁴. Besides the schematic revision of several types of rules to set a uniform definition of legality, a consistent approach with the objectives pursued by the EU-Indonesia FLEGT VPA was reached.

An interesting requirement of the VPA is the request that Indonesia shall verify the legality of exports to non-EU markets and timber sold in the domestic market (Article 10, paragraph 1 of the EU-Indonesia FLEGT VPA). In this way, the EU has influenced not only Indonesia's forest regulations and policies, but also the country's domestic trade conditions as well as trade procedures at international level.

The EU-Indonesia FLEGT VPA has been reached based on the Sistem Verifikasi Legalitas Kayu (SVLK), a timber legality assurance system adopted in 2009. This system provides assurance that the timber and timber products produced and processed in Indonesia come from legal sources and are in full compliance with relevant domestic laws and regulations³⁵.

2.3.3.2. The Indonesian timber legality assurance system implementation

³³ EU FLEGT Facility. Indonesia, VPA status, <https://www.euflegt.efi.int/indonesia> (accessed on 25 May 2022).

³⁴ Overvest, C., and Zeitlin, J. Experimentalism in transnational forest governance: Implementing European Union Forest Law Enforcement, Governance and Trade (FLEGT) Voluntary Partnership Agreements in Indonesia and Ghana, *Regulation and Governance*, 2018, p. 73.

³⁵ EU FLEGT Facility, Background. The Indonesia-EU Voluntary Partnership Agreement, <http://euflegt.efi.int/background-indonesia> (accessed on 25 May 2022).

Indonesia has made efforts to combat illegal logging since 2001. In 2003, it launched a multi-stakeholder process to define legality in the timber sector and to design its timber legality assurance system (SVLK in the Bahasa Indonesian language) that was finally adopted in 2009³⁶.

Under the SVLK, registered operators—understood as timber producers, traders, processors, and exporters in Indonesia—that hold a valid EU FLEGT licence scheme (3-year duration) and yearn to export to the EU are bound to an operational control through their entire timber supply chains. All operators are required to keep records on received, stored, processed, and delivered timber and timber products, and may be subject to scrutiny visits (Appendix of the revised Annex V of the EU-Indonesia FLEGT VPA)³⁷.

The SVLK also holds an Independent Monitoring (IM) scheme made up of civil society organisations that assess and report on the legality compliance, auditing, and licencing processes. The IM scheme has the authority to report irregularities to the corresponding authorities and may also file complaints before the Indonesian Ministry of Forestry (revised Annex V of the EU-Indonesia FLEGT VPA).

2.3.4. A critical review of the PPM (EU FLEGT licence scheme)

As mentioned in Section 2.1, the EU's total imports of tropical wood and wood furniture amounted to USD 4.4 billion in 2019. From this amount, USD 3.35 billion (76%) was covered by countries engaged in an EU FLEGT VPA process. Roughly 22% of the total originated from Indonesia, the only country with an EU FLEGT licence scheme in 2019. Another 32% was sourced from countries implementing an EU FLEGT licence scheme, and 22% came from countries negotiating an EU FLEGT VPA³⁸. Considering these figures, it may be argued that, to date, the implementation of the EU FLEGT licence scheme does not provide preferential participation in the EU market.

However, there might be other factors to explain the limited share of Indonesia's imports into the EU. Indonesia's worldwide exports of timber and timber products have increased significantly since the EU FLEGT licencing scheme was implemented in 2017. In 2019, they reached 16.2 million tonnes, most of which was destined for Asian markets (83%), with China as the largest partner (37%). China is not only an important trade partner for Indonesia, but its demand for timber products has significantly increased in recent years³⁹. The low share of only 4.8% of Indonesia's total exports that the 778,000

³⁶ Overinvest, see note 32 on p. 70.

³⁷ Commission Decision (EU) 2015/1158 of 8 July 2015 on the position to be taken by the Commission, on behalf of the European Union, in the Joint Implementation Committee set up by the Voluntary Partnership Agreement between the European Union and the Republic of Indonesia on Forest Law Enforcement, Governance and Trade in timber products into the European Union as regards the amendments to the Annexes I, II and V of the Voluntary Partnership Agreement between the European Union and the Republic of Indonesia.

³⁸ International Tropical Timber Organization, see note 21 on p. 70.

³⁹ Zhang, Q., Li, Y., Yu, C., Qi, J., Yang, C., Cheng, B., Liang, S. (2019) Global timber harvest footprints of nations and virtual timber trade flows, *Journal of Cleaner Production* <https://doi.org/10.1016/j.jclepro.2019.119503>.

tonnes of timber and timber products exported to the EU in 2019 represent⁴⁰ might thus be explained by a growing demand for timber products in other markets such as in China.

A reason for limited uptake of the EU FLEGT licence scheme may, however, also be explained by a lack of sufficient support from EU member countries. A detailed evaluation of the different public procurement policies at EU level in 2014 revealed that only Denmark, Luxembourg, and the United Kingdom included provisions for EU FLEGT-licensed timber in their procurement policies⁴¹. Similarly, an analysis of wood promotion campaigns in key EU Member states that took place at the beginning of 2019 claims that only five of 13 campaigns make clear reference to the EU FLEGT licence scheme, while the other eight campaigns do not. The Sustainable Tropical Timber Coalition (STTC) and the Fair & Precious campaign (ATIBT), which count among the most important wood promotion campaigns, both supported the aims of the EU FLEGT initiative, yet focus on advocacy and third-party forest certification such as Forest Stewardship Council (FSC) and/or Programme for the Endorsement of Forest Certification (PEFC) for implementation purposes. In fact, private third-party certifications are the favoured proof to demonstrate the sustainability of licensed timber and timber products from Indonesia into the EU⁴².

It may, however, be argued that even if exports to the EU are limited and although there has been no considerable export growth of Indonesian timber and timber products that meet EU FLEGT licencing requirements to non-EU markets either, the EU-Indonesia VPA has still influenced Indonesian forest policy, as discussed in Section 2.3.3.1. A less optimistic picture is portrayed by observations that while the EU FLEGT Regulation aimed to reduce illegal logging, it does not reduce deforestation per se. Deforestation is continuing at a global scale⁴³ and is still significant in Indonesia, particularly in the province of Papua, where trade in timber and timber products is the principal driver of forest loss⁴⁴. The limited evidence that EU FLEGT VPAs contribute to a reduction of illegal logging as well as the widespread perception that the EU's legal and policy framework was insufficient against deforestation and forest degradation generate discussion of regulatory options⁴⁵ that have led to proposals requesting that only deforestation-free relevant commodities, including derived products such as timber (Annex I), should enter the EU market⁴⁶.

Another aspect that has been criticised regarding the EU FLEGT licence scheme is high implementation efforts and costs. The EU FLEGT licence scheme with Indonesia—to date the only existing one—came only into operation after 15 years of work and negotiations. The investment costs for this to happen

⁴⁰ International Tropical Timber Organization, p. 41.

⁴¹ Brack, D., *Promoting Legal and Sustainable Timber: Using Public Procurement Policy*, Chatham House, Research Paper, Energy, Environment and Resources, September 2014, p. 17.

⁴² International Tropical Timber Organization, see note 21 on p. 92-93.

⁴³ See e.g., Global Forest Watch <https://www.globalforestwatch.org>.

⁴⁴ Pacheco, P., Mo, K., Dudley, N., Shapiro, A., Aguilar-Amuchastegui, N., Ling, P.Y., Anderson, C., and Marx, A. (2021) *Deforestation fronts: Drivers and responses in a changing world*. WWF, Gland, Switzerland, p. 122.

⁴⁵ Schilling-Vacaflor, A., and Lenschow, A. (2021) Hardening foreign corporate accountability through mandatory due diligence in the European Union? New trends and persisting challenges, *Regulation & Governance*, p. 7, <https://doi.org/10.1111/rego.12402>.

⁴⁶ Proposal for a Regulation of the European Parliament and of the Council on the making available on the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No. 995/2010, 17 November 2021, p. 62-64, <https://op.europa.eu/en/publication-detail/-/publication/b42e6f40-4878-11ec-91ac-01aa75ed71a1/language-en>.

are estimated at EUR 1 billion⁴⁷. The costs are thus almost equal to the total value of timber products exported to the EU in 2019 (USD 1.15 billion). However, these costs are shared by various actors. The EC has earmarked around EUR 20 million (EC/MS Survey 2015) in the form of economic and development cooperation funds in projects and programmes such as the EU FLEGT Facility, FAO⁴⁸-EU FLEGT, and the World Wide Fund (WWF) capacity building of civil society. Indonesia's contribution to operationalise the EU FLEGT licencing scheme is also estimated at EUR 20 million. An example is the costs involved in SVLK certification. Estimates indicate direct costs of EUR 2,000 to EUR 3,000 per company to be re-audited every 1–2 years with similar costs. Up until 2014, Indonesia certified nearly 1,000 large companies and 2,350 small and medium enterprises (SMEs) with a total estimated cost of EUR 5 million. In addition, indirect costs related to SVLK certification amounted to EUR 10 million⁴⁹.

3. Case study: Biofuels

3.1. The market of biofuels

In Europe, the transport sector is one of the main contributors to GHG emissions, preceded only by the energy supply and industry sectors⁵⁰. With the goal to reduce GHG emissions resulting from the use of fossil diesel and gasoline, the EU has adopted energy efficiency measures that promote their progressive replacement by renewable energies, mostly in the form of biofuels. The EU consumption of such biofuels reached 12,692 ktoe⁵¹ in 2018. Most biofuels consumed in the EU constitute of biodiesel (77%, FAME or HVO) or bioethanol (16%). Other liquid biofuels (6%) are not specified. In 2018, 59% of the feedstock⁵² used for biofuel production was imported from third countries. The largest shares of feedstock by products and countries were as follows: palm oil from Indonesia (15%) and Malaysia (7%), and soybeans from Argentina (9%)⁵³.

3.2. Biofuels in international and EU law and policy

3.2.1. The Paris Agreement on Climate Change⁵⁴ (2015)

⁴⁷ Rutt, Rebecca L., Rodd Myers, Sabaheta Ramcilovic-Suominen and Constance McDermott, 'FLEGT: Another 'Forestry fad'?', *Environmental Science and Policy* 89, 2018, p. 271.

⁴⁸ Food and Agriculture Organisation of the United Nations

⁴⁹ Terea Consortium, Final Report Volume 1 (Main Report), Evaluation of the EU FLEGT Action Plan (Forest Law Enforcement Governance and Trade) 2004-2014, 27 April 2016, p. 134, <https://ec.europa.eu/environment/forests/pdf/FLEGT%20Eval%20Consultant%20Report%20EN.pdf> (accessed on 25 May 2022).

⁵⁰ European Environment Agency, GHG emissions by sector in the EU-28, 1990-2016, 31 May 2018, https://www.eea.europa.eu/data-and-maps/daviz/ghg-emissions-by-sector-in#tab-chart_2 (accessed 16 May 2022).

⁵¹ Ktoe refers to 1,000 tonnes of oil equivalent and constitutes the calculation unit for MS to report the progress on renewable energy, see at: <https://ec.europa.eu/eurostat/documents/38154/4956088/SHARES-2016-manual.pdf/77089cf0-bcee-49b9-aaa9-4fec390b44ca> (accessed 24 July 2022).

⁵² Feedstock refers to the source material used to produce renewable fuels like biodiesel, renewable diesel fuel, and ethanol.

⁵³ European Commission, Report from the Commission to the European Parliament, the Council, The European Economic and Social Committee, the Committee of the Regions, Renewable Energy Progress Report, Brussels, 14.10.2020 COM(2020) 952 final, p. 14-15, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0952&from=EN> (accessed 16 May 2022).

⁵⁴ It was adopted on the 12 December 2015 and entered into force on the 4 November 2016.

The Paris Agreement on Climate Change adopted by 196 members of the United Nations Framework Convention on Climate Change (UNFCCC) at the COP 21 in December 2015 underlines the importance for states to introduce policies and incentives to reduce emissions from deforestation and forest degradation. A particular emphasis lies on sustainable management of forests and the enhancement of forest carbon stocks in developing countries, for which parties shall adopt joint mitigation and adaptation measures. The agreement also highlights that while a reduction of GHG emissions is important, measures should incentivise approaches that include non-carbon benefits (Article 5).

The EU has made significant efforts to achieve the commitments set by the Paris Agreement through consistently improving energy productivity and reducing GHG intensity of energy consumption⁵⁵. Commitments to implement the Paris Agreement have been incorporated in free trade agreements (FTAs) of the EU with Mexico, Vietnam, Japan, and Singapore⁵⁶. Similar provisions are also part of FTAs in current EU negotiations with Mercosur and Indonesia.

3.2.2. A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy (Energy Union Strategy) (2015)

Until 2015, EU energy rules were not harmonised at community level. Therefore, the EC established a set of actions to achieve better cohesion in the form of the Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy (Energy Union Strategy) adopted in 2015. Referring to an energy-efficient and decarbonised transport sector, this strategy acknowledges the importance of reducing carbon emissions by setting a target for renewable energy. Renewables should achieve a minimal share of 27% of the total energy use in the transport sector by 2030. The EU also recognised the need to adopt policies that advanced the use of alternative fuels such as biofuels that, apart from reducing GHG emissions, also address other negative impacts on the environment, land use, and food production⁵⁷.

3.2.3. Clean Energy for All European Package (2016)

In 2016, the EC introduced a set of measures called the Clean Energy for All European Package, which focuses mainly on energy efficiency and renewable energy⁵⁸. A consequence of this package was a revision of the Renewable Energy Directive (2018/2001/EU), which includes, among others, the target

⁵⁵ European Commission, Report to the European Parliament, the Council, The European Economic and Social Committee, the Committee of the Regions and the European Investment Bank, Fourth report on the State of the Energy Union, Brussels, 9.4.2019 COM(2019) 175 final, p. 4, https://ec.europa.eu/info/sites/default/files/fourth-report-state-of-energy-union-april2019_en_0.pdf (accessed 23 May 2022).

⁵⁶ European Commission, Report from the Commission to the European Parliament, the Council, The European Economic and Social Committee, the Committee of the Regions on Implementation of Free Trade Agreements 1 January 2018 - 31 December 2018, p. 32, <https://op.europa.eu/en/publication-detail/-/publication/1bbb43a4-f540-11e9-8c1f-01aa75ed71a1> (accessed 23 May 2022).

⁵⁷ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank, A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy, p. 15-21, https://eur-lex.europa.eu/resource.html?uri=cellar:1bd46c90-bdd4-11e4-bbe1-01aa75ed71a1.0001.03/DOC_1&format=PDF (accessed 23 May 2022).

⁵⁸ European Commission - Press release, Clean Energy for all Europeans – unlocking Europe’s growth potential, Brussels, 30 November 2016, p. 2, https://ec.europa.eu/commission/presscorner/detail/en/IP_16_4009 (accessed 23 May 2022).

to increase the share of renewable energy sources to at least 32% by 2030 and emphasises the reinforcement of sustainability in bioenergy production⁵⁹.

3.2.4. European Green Deal (2019)

The European Green Deal sets a long-term vision for a prosperous, modern and climate neutral economy by raising the EU's target of having at least 50% of its energy coming from renewable sources and by achieving net-zero emissions for 2050⁶⁰. A clear focus lies on resource-efficiency and economic growth decoupled from extensive resource use⁶¹.

With the purpose of accomplishing such challenging goals, the European Green Deal initiated the revision of legislative measures such as the Land Use, Land Use Change and Forestry Regulation and the Energy Efficiency Directive. In addition, the Green Deal agenda acknowledges a more prominent role for trade policy in setting pathways towards the EU's green transition by enhancing trade and investment in green goods, including raw materials as well as tackling detrimental practices like illegal logging⁶².

3.3. The applicability of the PPM (third-party certification schemes)

3.3.1. Sustainability and greenhouse gas (GHG) emissions targets as the criteria for product differentiation

Biofuels produced within the EU are insufficient to cover domestic demand. Therefore, the import of biofuels into the EU is crucial both to supply the internal market with sufficient fuel and to meet renewable energy targets at community and member state levels. Aware of this interdependency, the EU has set sustainability and GHG emissions saving criteria for imports of biofuels. While the sustainability criterion mainly affects forestry feedstocks, the GHG emissions criterion covers solid and gaseous biomass fuels⁶³.

Members States shall ensure that renewable energy sources (biofuels, bioliquids, and biomass fuels) make up at least 14% of the renewable energy share target in the transport sector by 2030 (Article 25 of the RED II). Such a cap excludes biofuels, bioliquids, and biomass fuels certified as low Indirect Land-use Change (ILUC) risk biofuels. These refer to fuels produced in a way that mitigates ILUC emissions caused by displacement effects of food and feed-crop based crops through improved agricultural practices as well as cultivating crops on areas that were previously not used for cultivation of crops and that meet the sustainability criteria set in Article 29 of RED II (Article 2, paragraph 37 of the RED II).

⁵⁹ European Commission, Factsheet: Renewable Energy Directive, 3 April 2019, p. 1, https://energy.ec.europa.eu/factsheet-renewable-energy-directive_en (accessed 23 May 2022).

⁶⁰ European Commission, Speech, Press Conference Speaking points State of the Energy Union report, Brussels, 9 April 2019, p. 2, https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_19_2072 (accessed 23 May 2022).

⁶¹ European Commission, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions, The European Green Deal, Brussels, 11 December 2019 COM(2019) 640 final, p. 2-5, https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC_1&format=PDF (accessed 23 May 2022).

⁶² *Ibid.*, p. 21.

⁶³ EU Science Hub, Renewable Energy - Recast to 2030 (RED II), p. 2, <https://ec.europa.eu/jrc/en/jec/renewable-energy-recast-2030-red-ii> (accessed 23 May 2022).

Table 3: Typology of EU legislative framework in biofuels linking market access to compliance with sustainability and greenhouse gas (GHG) emissions targets criteria

Laws and regulations	Scope	Key provisions
Directive 98/70/EC of the European Parliament and of the Council relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC (Fuel Quality Directive) 13 October 1998	Establishes specifications on fuels to be used in transport	Allows maximum amounts of bio components in fuels for the transport sector at 10% ethanol in petrol and 7% fatty acid methyl ester (FAME) in diesel. In addition, Member states shall also comply with environmental requirements (Annexes I and II)
Directive 2009/28/EC of the European Parliament and of the Council on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC (RED I) 23 April 2009	Provides a common legal framework for the promotion of renewable energy sources by setting caps and counting systems	Establishes mandatory national targets of at least 20% of the overall share of energy from renewable sources to be met in 2020 (Article 3) and introduces a sustainability criterion for biofuels and bioliquids (Article 17, paragraph 2)
Directive 2015/1513 of the European Parliament and of the Council of 9 September 2015 amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Directive 2009/28/EC on the promotion of the use of energy from renewable sources	Amends the Directive 98/70/EC and the Directive 2009/28/EC	The European Commission recognises national certification schemes if they fulfil the established procedure (Articles 18 and 25, paragraph 3)
Directive (EU) 2018/2001 of the European Parliament and of the Council on the promotion of the use of energy from renewable sources (RED II) 11 December 2018	Is an update of the RED I that promotes shrinking use and import of fossil diesel and gasoline and their progressive replacement with renewable energies by setting the most ambitious caps and counting systems	Defines biofuels as liquid fuel for transport produced from biomass or biodegradable fraction of products such as forest residues (Article 2, paragraphs 33 and 24). It grants flexibility to the Member states' national contributions by stating that they will collectively ensure the mandatory overall target of at least 32% in consumption of renewable energy for the period 2021–2030 (Article 3). It requests Member states to achieve a share of renewable energy of at least 14% in the total energy consumption by 2030 ("minimum share"), including at least 3.5% of advanced biofuels, and biogas produced from the feedstock included in Part A of Annex IX (Article 25, paragraph 1). It promotes the development of feedstocks to produce biogas in the transport sector and advanced biofuels included in its Annex IX by specifying that they should be considered twice their energy content ("double counting" system). The European Commission approves the eligible voluntary national or international certification schemes for sustainable biofuels, bioliquids and biomass fuels or other fuels. These have a five-year period of validity (Article 30, paragraphs 4, 5 and 6)
Commission Delegated Regulation (EU) 2019/807 supplementing Directive (EU) 2018/2001 as	Sets the criteria for determining the high ILUC-risk feedstock and for certifying low ILUC-risk biofuels,	Includes a list of biofuels produced from feedstocks that will be considered twice their energy content (Annex IX A)

<p>regards the determination of high indirect land-use change-risk feedstock for which a significant expansion of the production area into land with high carbon stock is observed and the certification of low indirect land-use change-risk biofuels, bioliquids and biomass fuels (ILUC Directive) 13 March 2019</p>	<p>bioliquids, and biomass fuels</p>	
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3.3.2. Scope of products covered and proof of differentiation

Product differentiation applies to all biofuels included in Annex V of the RED II (Rules for calculating the GHG impact of biofuels, bioliquids and their fossil fuel comparators). For example, sugar beet ethanol, corn (maize) ethanol, rape seed biodiesel, sunflower biodiesel, soybean biodiesel, palm oil biodiesel, and waste cooking oil biodiesel fall under the Chapter 15 and HS heading 1511 and 1513 (palm oil) and are subject to tariffs from 0 to 10.9%⁶⁴.

To verify the compliance of the sustainability and GHG emissions saving criteria for the above mentioned biofuels, the EC requires that such products be accompanied by at least one of the 13 recognised voluntary certification schemes: Biomass Biofuels voluntary scheme (2BSvs), Bonsucro EU, Better Biomass, International Sustainability and Carbon Certification (ISCC EU), KZR INiG System, Red Tractor Farm Assurance Combinable Crops & Sugar Beet Scheme (Red Tractor), REDcert-EU, Round Table on Responsible Soy with EU RED Requirements (RTRS EU RED), Roundtable of Sustainable Biomaterials (RSB), Scottish Quality Crops Farm Assurance Scheme (SQC), SURE, Trade Assurance Scheme for Combinable Crops (TASCC) and Universal Feed Assurance Scheme (UFAS)⁶⁵.

In addition, member states may accept evidence from national certification schemes if they are stringent enough to achieve recognition by the EC⁶⁶. As an example, the Austrian Agricultural Certification Scheme (AASC) constitutes the first national biofuel sustainability certification scheme put forward by a member state that meets the sustainability and GHG emissions saving criteria. The AASC covers biofuels grown and harvested on Austrian soil⁶⁷.

3.3.3. The incorporation of the PPM in bilateral agreements

⁶⁴ European Union External Action (EEAS), see note at 76, p. 1.

⁶⁵ Official Journal of the European Union, Legislation L 114, Volume 65, 12 April 2022, p. 173-211, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L:2022:114:FULL&from=EN> (accessed 09 May 2022).

⁶⁶ European Commission, Voluntary Schemes, https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/voluntary-schemes_en?redir=1 (accessed 09 May 2022).

⁶⁷ Agrarmarkt Austria, Sustainability of Biofuels, Bioliquids and Biomass Fuels, Infosheet for Registered Farmers, Version 02-31.01.2022, p. 3, https://www.ama.at/getattachment/ba0dd961-62c4-4ee9-9dd2-c4d936ddfffa/Infosheet_AACS_for_registered_farmers_v02_ab_2022_01.pdf?msclkid=8695160bcf9e11ec897cfb286bea08e5 (accessed 16. May 2022).

To date, no EU FTA has incorporated sustainability provisions concerning biofuels. However, the EU is conducting rounds of negotiations with key palm oil producing countries such as Indonesia⁶⁸, whose trade and sustainable development chapter shall incorporate such.

For example, a draft proposal for an FTA with Indonesia states that the parties shall promote trade of products based on the sustainable use of biological resources and the conservation of biodiversity, including forest (Art. X.6)⁶⁹. To obtain a good understanding of the payoffs of the discussed EU-Indonesia FTA on social, human rights, and environmental concerns, the EC delegated the elaboration of an impact sustainability assessment. This approach shall also ensure increased transparency and accommodate perspectives from various actors involved in the design and management of sustainable palm oil certification schemes⁷⁰.

Another example is the EU-Mercosur FTA, which is currently under legal review⁷¹. One of the main sustainability concerns under this agreement is linked to bioethanol production potentially resulting in increased deforestation rates in Brazil because the trade agreement aims to significantly increase import quotas⁷². A total of 450,000 tonnes of ethanol for the chemical industry would enter duty-free and 200,000 tonnes of ethanol for all uses with a one-third in-quota rate in the following five years⁷³. The current proposal for an EU-Mercosur agreement therefore incorporates the joint promotion of the conservation and sustainable management of forests to reduce deforestation and illegal logging (Art. 13, m), even though this and most other provisions in the chapter on trade and sustainable development are non-binding⁷⁴.

3.3.4. A critical review of the PPM

The sustainability and GHG emissions savings criteria for biofuels are complex to implement for EU member states. There exist several caps and counting systems, and the measures as well as strategies for their fulfilment are contained in the National Energy and Climate Plans (NECPs). According to the assessment of the NECPs in 2019, member states' shares of renewable energy in the transport sector were between 30.4% and 31.9%, which were below the target of at least 32% in 2030⁷⁵. However, this lack of reduction was partly compensated due to the effects of the COVID-19 pandemic on energy

⁶⁸ European Commission, Overview of FTA and other trade negotiations, May 2022, p. 1-2, <https://circabc.europa.eu/ui/group/09242a36-a438-40fd-a7af-fe32e36cbd0e/library/a7aab8e0-085d-4e36-826f-cbe8e913cf13/details> (accessed 18 May 2022).

⁶⁹ European Commission, EU-Indonesia Agreement: Documents, Sustainable Development, <https://circabc.europa.eu/ui/group/09242a36-a438-40fd-a7af-fe32e36cbd0e/library/95a40e1f-c256-4039-9076-b6a109fd4c6d/details> (accessed 24 July 2022).

⁷⁰ European Union External Action (EEAS), Palm Oil. Fact Sheet. FS-PO-01, 21 March 2019, p. 13, https://www.eeas.europa.eu/sites/default/files/po01_palm_oil_20190904_en.pdf#:~:text=The%20European%20Union%20%28EU%29%20is%20one%20the%20three,also%20low%20in%20comparison%20with%20other%20export%20markets (accessed 18 May 2022).

European Commission, European Commission Services' position paper on the Sustainability Impact Assessment in support of negotiations on a trade agreement between the European Union and Indonesia, 26 June 2020, p. 9, https://trade.ec.europa.eu/doclib/docs/2020/july/tradoc_158899.pdf (accessed 24 July 2022).

⁷¹ European Commission, Overview of FTA and other trade negotiations, p. 4.

⁷² Cremers, K., Laurans, Y., and Voituriez, T. (2021). The Future of EU Free Trade Agreements: European dialogue in light of the EU-Mercosur Association Agreement. IDDRI, *Study N°02/21*, p. 7, <https://www.iddri.org/sites/default/files/PDF/Publications/Catalogue%20iddri/Etude/202102-ST0221-eu%20mercour%20trade.pdf> (accessed 18 May 2022).

⁷³ European Commission, Trade, EU-Mercosur Trade Agreement: The Agreement in Principle, Texts of the Agreement, Annex on Tariff Schedule Elimination, Annex 2-A, https://trade.ec.europa.eu/doclib/docs/2021/july/tradoc_159728.pdf (accessed 23 May 2022).

⁷⁴ European Commission, Trade, EU-Mercosur Trade Agreement: The Agreement in Principle, Texts of the Agreement, Trade and Sustainable Development, https://trade.ec.europa.eu/doclib/docs/2017/april/tradoc_155481.pdf (accessed 25 July 2022).

⁷⁵ European Commission, Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, United in delivering the Energy Union and Climate Action – Setting the foundations for successful clean energy transition, Brussels, 18.06.2019 COM(2019), 285 final, p. 3.

consumption. In 2020, EU member states improved their performance by achieving a share of biofuels in the range of 33.1% to 33.7% at community level, thus slightly exceeding the target of 32%.

A point of critique has been double counting. It has been argued that the explicit “double-counting system” for biofuel imports undermines the sustainability criterion at EU level as it allows member states to achieve their national renewable energy targets with a small volume of sustainable biofuels, while not preventing them from using blends with fewer bio components⁷⁶. Such a practice has the potential to disguise actual EU energy demands of the transport sector and will potentially even increase the dependence on fossil fuels⁷⁷.

A further concern relates to the nature and diversity of approved certification schemes. Private and voluntary certification schemes are the principal proof of compliance with the sustainability criterion⁷⁸. A review of the voluntary schemes in 2019 observed that there are significant differences between schemes in terms of units of certification, validity of certification, and form of audits (on-site versus desk-based). Schemes also vary in terms of transparency and public access to relevant information. Most of the analysed schemes lacked proper traceability that would help reduce risks of fraud⁷⁹.

⁷⁶ Ecofys - A Navigant Company and Stockholm Environment Institute, Technical assistance in realisation of the 2018 report on biofuels sustainability Biofuels, biomass & biogas used for renewable energy generation, Final Report, 4 April 2019, p. 17-19, https://ec.europa.eu/energy/sites/ener/files/documents/technical_assistance_in_realisation_of_the_2018_report_on_biomass_sustainability-final_report.pdf (accessed 23 May 2022).

⁷⁷ See Euractiv, Double-counted renewables will increase dependency on fossil fuels, <https://www.euractiv.com/section/agriculture-food/news/double-counted-renewables-will-increase-dependency-on-fossil-fuels/> (accessed 25 July 2022).

⁷⁸ European Commission, Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Report on renewable energy progress report, Brussels, 09.04.2019 COM(2019), 225 final, p. 15.

⁷⁹ Ecofys - A Navigant Company and Stockholm Environment Institute, Review of voluntary scheme annual reports, Final Report, 2 April 2019, p. 6, https://ec.europa.eu/energy/sites/default/files/navigant_2019_review_of_voluntary_scheme_annual_reports.pdf (accessed 16 May 2022).

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