Int Environ Agreements
https://doi.org/10.1007/s10784-024-09647-9

ORIGINAL PAPER

Should we regulate forests through free trade agreements?

Tamara Grigoras[1]

Accepted: 21 July 2024

Abstract
The international forest regime—if there ever was such a thing—traditionally developed on the fringes of various environmental treaty regimes. In recent years, however, the regime's boundaries have conquered new, historically hostile territories. The last two decades have indeed witnessed the emergence, and then proliferation, of a new generation of free trade agreements that incorporate commitments pertaining to forests. These commitments have developed along two lines: either through the establishment of linkages to pre-existing forest-related obligations enshrined in multilateral environmental agreements or through the creation of new forest commitments. To the extent that such trade-forest commitments have now become part and parcel of the international law governing forests, their existence raises important policy choice questions that have not been addressed yet. This article aims to fill this gap by answering the following question: should we, for the sake of the protection of our forests, welcome such a development or, on the contrary, oppose it? Using a legal-dogmatic approach, this article provides, based on a cross-study analysis of a selection of trade agreements including forest-related provisions, a doctrinal evaluation of the fitness of these commitments to achieve forest protection and identifies the opportunities and risks associated therewith. In so doing, this article debates the adequacy of international trade law for regulating forests.

Keywords International forest law · Free trade agreements · Fragmentation · International environmental law

Abbreviations

CBD	Convention on Biological Diversity
CEPA	Comprehensive Economic Partnership Agreement
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
DSM	Dispute settlement mechanism(s)
EFTA	European Free Trade Association
EPA	Economic Partnership Agreement
EU	European Union

✉ Tamara Grigoras
tamara.l.grigoras@gmail.com

[1] University of Fribourg (Chair of Public International Law and European Law), Fribourg, Switzerland

FAO	Food and Agriculture Organization
FRP	Forest-related provision(s)
FTA	Free trade agreement(s)
G-7	Group of Seven
G-77	Group of 77
IEL	International environmental law
IFR	International forest regime
ILC	International Law Commission
ITA	Interim Trade Agreement
MEA	Multilateral environmental agreement(s)
NAFTA	North American Free Trade Agreement
REDD	Reducing Emissions from Deforestation and Forest Degradation
TPA	Trade Promotion Agreement
UK	United Kingdom
UNCED	United Nations Conference on Environment and Development
UNFCCC	United Nations Framework Convention on Climate Change
US	United States
USD	United States dollar(s)
USMCA	United States-Mexico-Canada Agreement
USTR	United States Trade Representative
WTO	World Trade Organization

1 Introduction

Forests' value to human life cannot be understated. In addition to generating the oxygen that living beings breath and absorbing carbon dioxide that human activities release, forests are abundant biodiversity reservoirs and instrumental in fighting one of the greatest challenges of the twenty-first century, namely, climate change. Despite the essential value of forests—or because of this value,—our forests are in a dire state, if not in severe jeopardy (FAO, 2020, p. 2).

Although the need to afford forests some sort of legal protection was recognized in the 1970s, it was only in the 1990s that the prospect of a comprehensive approach to forests emerged when some of the states participating in the 1992 Rio Conference proposed a legally binding convention on forests. The recommendation of the Group of Seven (G-7) and the European Parliament for such a global forest treaty was, however, quickly discarded by the Group of 77 (G-77), which viewed forests as natural resources over which sovereignty could be claimed (Humphreys, 2005; Wang, 2001). What came out of the 1992 Earth Summit in lieu was the adoption of two non-legally binding instruments. In the years that followed this landmark event, little progress was made toward the adoption of a global forest convention. Instead, the international law pertaining to forests started to develop at the margins of various treaty regimes—namely, multilateral environmental agreements (MEA). Today, and to quote Humphreys (2006, p. 213), the international forest regime (IFR) "is disconnected and multicentric". It is a complex bundle of linkages between forests and other issues addressed by international law.

If these linkages were traditionally restricted to the realm of international environmental law (IEL),[1] they have, in recent years, also surfaced in other fields of international law. A dimension of this development has been the slow emergence, and then proliferation, of forest-trade linkages in free trade agreements (FTA).[2] Indeed, the late 1990s and early 2000s witnessed what is often referred to as the "greening" of FTAs as treaty parties undertook to introduce environmental commitments in these agreements. Over time, the remit of these commitments progressively came to encompass diverse environmental matters, such forest-related issues. As a result, FTAs have now become part and parcel of the international law governing forests.

Despite their growing relevance to ongoing global efforts to enhance forest protection through international law, the adequacy of these forest-trade commitments to protect forests has been so far overlooked by the literature. Whether FTAs are the right venue for pursuing forest regulation or whether we should seek to advance the forest agenda through other means are not interrogations to take lightly in face of the urgent need to afford better protection to our forests. As for the persisting relevance of a global treaty convention (Eikermann, 2015), it is important to ponder whether FTAs are fit for forest protection purposes. This is a gap that this article aims to fill.

To this end, this article provides a doctrinal evaluation of the benefits and risks associated with these forest commitments found in FTAs. Therefore, this article's method is first and foremost doctrinal. It draws on and engages with a wide range of scholarly writings. Also, and to the extent that this article critically reviews the adequacy of forest-trade commitments found in FTAs, it bases its assessment on a cross-study analysis of a range of selected FTAs and therefore uses a legal-dogmatic approach. Although a full account of these commitments is, for obvious reasons, beyond the scope this article, references to specific commitments are made when relevant. It must be noted that these are not exhaustive, but only illustrative.

This article is structured as follows. The next section provides some theoretical background to enable a better understanding of what led to the slow penetration of forest-related concerns in trade policy. The third and fourth section identify what are, respectively, the main pros and cons of regulating forests through FTAs and critically assess them. The third section argues that FRPs make a two-fold positive contribution to forest protection; on the one hand, they foster the further development of the IFR and, on the other, they strengthen pre-existing forest commitments. The fourth section shows that regulating forests through FTAs is not without danger and risks creating an additional, unwanted layer of fragmentation in relation to an already highly fragmented IFR. The fifth and last section concludes.

[1] International rules governing forests could originally be found in environmental treaty regimes, such as the climate change regime or the biodiversity regime.

[2] FTA is one term among others than can be used to refer to trade agreements. Alternative expressions include trade promotion agreement, comprehensive economic partnership agreement or preferential trade agreement. In the context of this paper, and for the sake of simplicity, we will prefer the notion of FTA and will use it indiscriminately to refer to all types of trade agreements. The correct denomination will however be used when references to specific agreements are made.

2 Explaining trade-forest linkages in FTAs

2.1 Fragmentation in international forest law

On some accounts, the international law pertaining to forests was doomed to fragmentation.[3] In that regard, two main factors can be identified. The first pertains to the forests' several dimensions or functions (Eikermann, 2015, pp. 14–22). In this light, exposure to fragmentation was already visible when the regime was in its early phase, which predates the 1992 Earth Summit. In the 1970s, growing concern over the sustainable utilization of forests and the necessity to ensure their sound conservation (Eikermann, 2015, pp. 32–34) led to the adoption of three international conventions governing, partially or entirely, forest-related products: the Convention on Wetlands of International Importance Especially as Waterfowl Habitats (1971); the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES, 1973); and the International Tropical Timber Agreement (1983; Wang, 2001, p. 252).

As a result, the first international rules concerning forests, which were regarded as tradable commodities, emerged dislocated and scattered around various treaty regimes. This function-driven fragmentation continued in the 1990s, which saw the proliferation of forest-related provisions (FRP), both within and outside the environmental regime. For each forests' function (e.g., biodiversity, climate change mitigation) and where political momentum for international regulation existed, there was thus a need for forest-related rules (Eikermann, 2015, pp. 61–130). It is then maybe unsurprising that both the United Nations Framework Convention on Climate Change (UNFCCC, 1992) and the Convention on Biological Diversity (CBD, 1992) include rules with a forest dimension (van Asselt, 2012).

Further fragmentation could have been avoided, and this is the second reason accounting for the forest regime's fragmentation, had there been sufficient state support (Young, 2021, p. 87) in 1992, when the G-7 and the European Parliament introduced a proposal for a forest convention at the Rio Earth Summit. The proposition was yet rejected by the G-77. The crux of these states' opposition was that such binding rules could interfere with their newly acquired sovereignty over natural resources (Johnson, 1993, p. 103). Restrictions placed on the right of sovereign states to freely utilize their forest resources could also hinder these countries' economic development in the absence of financial compensation by Northern countries (Humphreys, 2008, p. 436). Some countries further expressed concern over the true reasons behind Global North countries' proposal, regarding this latter as a form of "ecological imperialism" (Humphreys, 2005, p. 5). As a result, and to quote Brunnée and Nollkaemper (1996, p. 308), "the development of anything resembling international forest law [has been] severely hampered by the prevailing paradigm of state sovereignty". In the end, two nonbinding instruments, the only option remaining, were adopted at the 1992 conference (UNCED, 1992a, 1992b, chap. 11).

In sum, if the forest regime comprises both nonbinding rules and binding rules scattered around various treaty regimes, it is certainly the result of a combination of lack of state support driven by sovereignty considerations and the multiplicity of functions served by forests that fuel the need to address them in conjunction with other environmental matters regulated by IEL, such as climate change. However, the spread of FRPs did not remain

[3] The fragmentation of this law explains why some scholars are reluctant to talk about an international forest "regime" (Krasner, 1982, p. 186) and instead prefer the terminology of "regime complex" (Giessen, 2013) or "nonregime" (Young, 2021, p. 87) when referring to the international rules, principles and procedures pertaining to forests.

circumscribed to the environmental realm; instead, they reached new territories, including the international trade regime.

2.2 Regulatory colonization of forests by international trade law

If forests are instrumental for safeguarding biological diversity and other environmental interests, they also have an important economic value for human societies. Historically, forests have played a determining role in human progress and development by providing individuals with the means to house and heat themselves as well as with the possibility of crossing seas and expanding territorially (Zon, 1920). Forests' mercantile potential was discovered very rapidly. Wood, which is essential for shipbuilding, enabled both colonial expansion and trade with overseas nations (Grove, 1997), and the timber products that could be derived from forests were frequently traded goods. Moreover, the land on which forests grew also became sought after as societies densified and organized and the need for additional food sources—and hence farmlands—increased.

Today, forests remain important to the world economy. The forest sector, taken at large, generated more than USD 1,52 trillion in 2015, and trade in wood products amounted to 2,3%, in terms of value, of global trade in 2020 (FAO, 2020, p. 17).

Unlike forests' relationship to biological diversity or climate change mitigation, which is usually mutually supportive and hence positive, the dynamics between forests and trade are quite the reverse. Indeed, with rising demand for wood and forest products and the unsustainable overexploitation of forests that ensued, several deforestation crises unfolded throughout centuries (Williams, 2003). Today, the overexploitation of forests for trade purposes not only continues but has even been institutionalized by international law. The responsibility of international trade law has been to establish an international organization, the World Trade Organization (WTO), and a set of multilateral trade rules, such as the infamous General Agreement on Tariffs and Trade (1994), aimed at facilitating global trade in goods and services by lowering and then removing tariff barriers as well as regulating the use of nontariff barriers (Gonzalez, 2001). The recent transformation of the international trading system—that is, from a primarily multilateral rule-based system to a wide web of bilateral or plurilateral trade relations—has further strengthened the role of trade law in forest degradation in certain regions of the world (Abman & Lundberg, 2020). As global trade in timber and agricultural products, owing to these trade rules, intensified, so did the pace of deforestation in certain parts of the world, such as the Amazon in Brazil (Faria & Almeida, 2016) or Indonesia, where forestlands have progressively been replaced by large-scale palm oil plantations.

However, attitudes toward free trade have changed over time (partly) as a result of growing concern over its adverse effects (Krugman, 1997). FTAs came to be seen as important vehicles for enhanced environmental standards and soon became part of certain states' international environmental policy (Berger et al., 2020, p. 116; Blümer et al., 2020, p. 869; Jinnah & Morgera, 2013, p. 41). More precisely, the so-called "greening" of FTAs began in 1994 when the North American Agreement on Environmental Cooperation (1993), a side treaty to the North American Free Trade Agreement (NAFTA, 1992), entered into force. This was the first FTA in which the environment was not merely regarded as an exception to trade commitments—as is the case under WTO law—but as a matter worth addressing comprehensively. A second major development in that regard occurred in the mid-2000s when major economies—first the United States (US) and then the European Union (EU)—started to systematically include whole chapters devoted to the environment (and labor) in

new FTAs (Jinnah & Morgera, 2013, p. 325). This new generation of FTAs, which is now the norm for most trade agreements[4] and whose environmental ambit continues to broaden, covers diverse environmental matters, such as air pollution, biodiversity and *forest management and conservation*. FRPs can now be found in many recent FTAs.

2.3 Forest-trade linkages in FTAs: a brief overview

Although a full account of the law governing forests in FTAs is beyond the scope of this paper (e.g., Pacheco, 2020), an assessment of FRPs' adequacy for forest protection purposes warrants two short remarks. The first pertains to the popularity of FRPs. Indeed, these are primarily found in FTAs concluded by or between Western countries (generally, see Monteiro & Trachtman, 2020). Historically, states from the Global South(s) have, as in the case of the G-7's proposal for a binding forest treaty, opposed the inclusion of green commitments in FTAs, viewing those as mere protectionist measures in disguise and restrictions upon their sovereignty (Bernauer & Nguyen, 2015; Koo & Kim, 2018). This does not mean that FTAs to which a country from the Global South(s) is party do not include one or more FRPs. Rather, an overwhelming majority of these agreements are concluded between Northern countries and Global South states, despite the latter's principled resistance and thanks to the former's superior bargaining power (Gruber, 2000; Sahakyan, 2016, p. 54).

The second remark concerns the content of FRPs (see Table 1). These provisions, like any other provision for that matter (Durán Garcia, 2020, pp. 1030–1040), can be roughly divided into two categories: (1) substantive FRPs that establish treaty parties' forest-related obligations; and (2) institutional FRPs that establish mechanisms relating to the implementation and enforcement of forest-related commitments. A second layer of distinction exists between forest-specific and non-forest-specific FRPs (for a similar distinction, see Pacheco, 2020, p. 5). While the former category of FRPs pertains directly and expressly to forests (EU-Japan FTA, 2018, art. 16.7), the latter category does not regulate forests specifically but nonetheless displays a forest dimension.[5] This said forest dimension is often manifested through linkages to MEAs, such as the CITES (1973; UK-Australia FTA, 2021, art. 22.16), the Appendices of which cover an important number of endangered forest species (Eikermann, 2015, p. 68) or to the CBD (1992; EU-Vietnam FTA, 2019, art. 13.7), which also protects forest biodiversity (Khalastchi & Mackenzie, 1999).

Now that we have outlined these two elements, we can turn to the assessment of the contributions of FRPs—both positive and negative—to forest protection.

[4] For instance, it is estimated that an average of 73 different environmental provisions are included in each FTA signed in 2018 (Brandi et al., 2020).

[5] References to MEAs can be found in provisions specifically dealing with forests (EFTA-Indonesia CEPA, 2018, art. 8.8.2[a]) or in provisions pertaining to other environmental matters (UK-Australia FTA, 2021, art. 22.16). By non-forest-specific FRPs, we primarily refer to the second category of provisions as they include more extensive obligations than the former category that simply reiterates treaty parties' commitments under MEAs.

Table 1 Overview of FRPs' content

	Forest-specific FRPs	Non-forest-specific FRPs
Substantive FRPs	Commitments pertaining to sustainable trade in and consumption of forest products (USMCA, 2019, art. 24.23.4[b]; EU-Japan FTA, 2018, art. 16.7.2[b]), including the promotion of certification schemes (US-Peru TPA, 2006, annex 18.3.4.3[h]; EU-Vietnam FTA, 2019, art. 13.8.2[a]) Commitments pertaining to forest conservation (UK-Australia FTA, 2021, art. 22.13.1; USMCA, 2019, art. 24.23.2), including combat against illegal logging (EU-Chile ITA, 2023, art. 26.11.2[a]; UK-Japan CEPA, 2020, art. 16.7.2[b]) Cooperation obligations between parties (EFTA-Indonesia CEPA, 2018, art. 8.8.2[d]) or in international fora (EU-Japan FTA, 2018, art. 16.7.2[c])	Linkages to the CBD (1992; EU-Vietnam FTA, 2019, art. 13.7) Linkages to the CITES (1973; UK-Australia FTA, 2021, art. 22.16) Linkages to the climate change regime (EU-Vietnam FTA, 2019, art. 13.16.2[a])
Institutional FRPs	Verification mechanisms to ensure legality of imported forest products (e.g., US-Mexico Environment Cooperation & Customs Verification Agreement [2019])	Implementation and monitoring mechanisms, including establishment of monitoring bodies and implementation committees (EFTA-Indonesia CEPA, 2018, art. 8.12; UK-Australia FTA, 2021, art. 22.21) and enhancement of civil society participation (EU-Vietnam FTA, 2019, art. 13.15.4; USMCA, 2019, art. 24.5.2–3) Compliance mechanisms, including environmental cooperation (EFTA-Indonesia CEPA, 2018, art. 8.12.2) and dispute settlement mechanisms such as establishment of panels of experts (EU-Japan FTA, 2018, art. 16.18) or arbitral panels (USMCA, 2019, art. 24.32)

3 Strengthening forest governance through forest–trade linkages

3.1 Advancing Forest Governance through FTAs

The first opportunity associated with FRPs that we identify is their potential to foster, as such, the further development of the IFR, which is, as previously mentioned, primarily made of rules either scattered around other legal international regimes or legally nonbinding. They do so by first enabling the negotiation of new forest rules (3.1.1) and, second, by contributing to the identification of areas where forest regulation is warranted and to the formulation of adequate forest policies (3.1.2).

3.1.1 Advancement in terms of commitments

If we recall correctly, the early development of the IFR was paved with many difficulties (to say the least). Any rule governing forests was either legally nonbinding (e.g., UNCED, 1992a) or included in a treaty that only incidentally governs forests (e.g., CBD, 1992). There was no room—and sufficient support for that matter—for a binding and unified approach to forests (Giessen, 2013). This is where FTAs can yield interesting results by creating opportunities for the adoption of forest-specific, legally binding rules.[6]

Regulating forests through trade agreements is perhaps not self-explanatory. After all, international trade regulation's main objectives are economic, and what results from this is its seemingly fundamental incompatibility with any noneconomic aim that forest rules (should) pursue. However, it is precisely the economic promises underlying free trade that account for these agreements' attractiveness as fora for negotiating forest-related rules. By facilitating trade between nations, trade agreements offer important opportunities for economic growth that are especially appealing to exporting countries—which often happen to be timber-producer countries (Gruber, 2000; Sahakyan, 2016, p. 54). Export-dependent countries will feel all the more compelled to accept a country's demand for stringent forest-related rules if the latter's domestic market is of important size (Koo & Kim, 2018, p. 389). Pressure is further intensified in cases where refusal to agree to the terms set by the importing-oriented country means that it does not enjoy the same preferential access as its direct competitors (Sahakyan, 2016, p. 54). For instance, in the case of the US-Peru Trade Promotion Agreement (TPA)—the sole trade agreement including a whole annex dedicated to forest governance (US-Peru TPA, 2006, annex 18.3.4; Velut et al., 2022, pp. 212–214)—the identification of the key areas to be covered by the agreement and this latter's terms were decided upon by the US. This latter was able to "extract concessions" from Peru, which could not afford not to have a trade agreement with the US in the face of mounting competition for access to the US market (Braun, 2013; Sahakyan, 2016, p. 54). This is also what seems to have happened during the renegotiation of NAFTA (1992), which, in 2020, was replaced by the United States-Mexico-Canada Agreement (USMCA, 2019). Indeed, Mexico had no alternative but to accept Trump administration's request to reopen negotiations over the 1994 trade deal (Bahri & Lugo, 2020, p. 6). In the end, stringent environmental commitments, some of which pertain to forests (USMCA, 2019, art. 24.23 and 24.8.4), were included in the agreement, despite Mexico's lack of enthusiasm for such norms (Menezes et al., 2022, p. 6). The EU was able to exert similar influence on Vietnam during the negotiation of the EU-Vietnam FTA (2019), which includes FRPs (Sicurelli, 2015, p. 32).

In sum, FTAs create the necessary incentives to bring normally reluctant countries at the negotiation table, some of which opposed the G-7's proposal for a binding forest convention in 1992. This is the case of Indonesia, which concluded a trade agreement with the European Free Trade Association (EFTA) (EFTA-Indonesia CEPA, 2018, art. 8.8). This has evident positive consequences for the advancement of forest governance, even if the means to achieve it remain highly problematic, as these forest-related commitments are sometimes secured through economic pressure.

[6] In fact, a common explanation put forward by observers to account for the introduction of environmental commitments in FTAs is that these latter make it easier to negotiate environmental rules than other multilateral fora (Berger et al., 2020, p. 116; Blümer et al., 2020, p. 869).

3.1.2 Advancement in terms of policy content

The advancement of the IFR is also made possible by FRPs themselves. It is possible to identify at least two ways in which they make a positive contribution. The first input of FRPs translates into the specific emphasis that many FRPs place on cooperation. Indeed, cooperation is an essential dimension of international forest governance and is key to furthering its improvement through continuous discussions on existing forest issues and the identification of new, emerging ones (Eikermann, 2015, p. 146). By placing specific cooperation obligations on the parties, FRPs contribute to ensuring that forests remain the object of "long-term political commitment(s) at the highest level" and foster consensus-building on what forest conservation and management require (Persson, 2005, p. 350).

This advancement through cooperation is made possible by a combination of substantive and institutional FRPs. At a substantive level, many (forest-specific) FRPs compel treaty parties to exchange views and, if appropriate, to cooperate on forest-related issues (EU-Japan FTA, 2018, art. 16.7.2[c]; EFTA-Indonesia CEPA, 2018, art. 8.8.2(d); UK-Australia FTA, 2021, art. 22.13.5; USMCA, 2019, art. 24.23.5). Exchange of information and cooperation are often required in relation to treaty parties' forest-related domestic measures and are intended to enhance the impact and effectiveness of these measures through better coordination and discussion (EU-Chile ITA, 2023, art. 26.11.2[d]). Other cooperation obligations demand from the parties that they cooperate either through regional arrangements if applicable or in international fora, such as the United Nations' initiative on Reducing Emissions from Deforestation and Forest Degradation (REDD+) (EFTA-Ecuador CEPA, 2018, art. 8.10.2[c]; UK-Norway-Lichtenstein-Iceland FTA, 2021, art. 13.27.2[h]). These provisions are supplemented by institutional FRPs that establish specific institutional arrangements, such as committees and other dialog settings, to enable better, orderly cooperation and discussion between the parties. For instance, most EU FTAs establish committees, including the Committee on Trade and Sustainable Development, where treaty parties can discuss forest-related issues (EU-Vietnam FTA, 2019, art. 16.4.1). Similarly, the EU-Canada Comprehensive Economic and Trade Agreement (2016) foresees the establishment of a Bilateral Dialogue on Forest Products (art. 24.10.3 and chap. 25). These arrangements through which continuous dialog is conducted may enable parties to mutually reinforce their respective forest law enforcement frameworks, identify and then design and promote new initiatives geared toward improving forest management and conservation, and strengthen existing ones. If sufficiently widespread, such instances of transfer knowledge and cooperation on forest matters could lead to greater consistency between countries' domestic practices and create political momentum to solidify these practices through the adoption of international rules.

FRPs' second positive contribution pertains to these provisions' identification of what should count as "sustainable forest governance" in the first place. The concept is in itself frequently used in any discussion on forests, but its contours remain blurred (Eikermann, 2015; Maguire, 2013, p. 70; Rametsteiner & Simula, 2003). By establishing specific forest-related obligations, FRPs may help to further our understanding of the content and elements of sustainable forest management. The US-Peru forest governance annex is, in this regard, a compelling example, as it spells extremely specific measures to be implemented by Peru, such as the introduction of new forest offenses punishable under criminal or civil law or the enhancement of forest concession mechanisms (US-Peru TPA, 2006, annex 18.3.4.3[b] and [g]). FRPs can be valuable even when international regulation already exists. For instance, the US-Peru TPA (2006) goes beyond the CITES (1973)

by prescribing very specific implementation measures that could be reproduced (Jinnah, 2011). It is not entirely inconceivable that these obligations could be emulated and help delineate the contours of future forest policies by identifying areas where regulation is necessary and what sustainable forest management requires.

3.2 Strengthening preexisting forest-related commitments

FRPs' main contribution to the IFR remains their ability to strengthen the binding character of preexisting forest commitments by establishing linkages to these (generally, see Jinnah, 2011). Indeed, as we have seen, forest-related commitments can be found in various MEAs that, without dealing with forests directly, include provisions affecting, in one way or another, forests (Pacheco, 2023, pp. 32–93). If these treaty commitments are generally considered binding because of the instrument in which they are found, they also feature key characteristics of soft law instruments. Bindingness[7] must indeed be regarded as a spectrum with at one extreme rules with a low level of bindingness (soft law) and at the other extreme rules with a high degree of bindingness (hard law) (Besson, 2010, p. 174). What makes law soft rather than hard and vice versa is by no means settled and certainly beyond the scope of this article, but what is worth mentioning is that the soft/hard aw divide is multidimensional (Abbott et al., 2000; Boyle, 1999). For instance, Boyle (1999) identifies three possible meanings for soft law: soft law as the form of the instrument, soft law as the quality and content of commitments and soft law as the means of enforcement. It is particularly in relation to the third meaning of soft law that FRPs make a difference.

First, FRPs can sometimes harden nontreaty rules. An illustration thereof can be found in the EFTA-Indonesia Comprehensive Economic Partnership Agreement (CEPA), which requests from the parties that they "promote the effective implementation and use of legality assurance system for timber" (2018, art. 8.8.2[c]). The mention of preexisting certification schemes, which are often of private origin and thus not legally binding per se, could well entail the hardening of these schemes once (and if) they are incorporated into the agreement or domestic implementation legislation. For instance, in relation to the EFTA-Indonesia CEPA (2018), the Roundtable on Sustainable Palm Oil Identity Protected certification scheme was deemed, based on an assessment study, to be reliable enough by the Swiss government. If accepted and put into law through the adoption of an ordinance, palm oil products meeting the requirements set forth by this scheme will benefit from preferential treatment and reduced tariffs (Chandrasekhar, 2021). This hardening process could also be achieved through treaty law, where this certification scheme is also accepted and adopted by the trade agreement's treaty parties. The same is also apparent in relation to certain WTO agreements that encourage treaty parties to rely on external nonbinding standards for the implementation of the agreement (Agreement on the Application of Sanitary & Phytosanitary Measures, 1994, art. 3 and annex 3).

FRPs can also strengthen the binding application of legally binding rules. For instance, one of the certification schemes mentioned by the EFTA-Indonesia CEPA (2018) is the EU-Indonesia Forest Law Enforcement Governance and Trade Voluntary Partnership Agreement (2014). Although this agreement is legally binding, its incorporation into the

[7] Bindingness in this context should be understood as the "character of a norm (…) which purports to guide or regulate conduct, making mandatory, prohibited, permitted, or recommended" (Roughan, 2018, p. 682).

EFTA-Indonesia CEPA (2018) extends its geographical reach and thus renders it applicable and bindingly so, to trade between EFTA countries and Indonesia (art. 8.8.2[c]).

Second, FRPs could help remedy the "vagueness, indeterminacy, or generality" (Boyle, 1999, p. 907) of certain forest-related rules found in MEAs. Despite being binding in a formal, treaty-oriented sense, some MEAs spell out commitments that are so imprecise or ambiguous that they are impossible to breach and thus soft (Boyle, 1999, p. 907). This is, for instance, the case of the UNFCCC (1992; Boyle, 1999, pp. 907–909) or, more recently, of the Paris Agreement (2015; Rajamani, 2016). FRPs, if they are sufficiently specific about treaty parties' obligations in relation to specific MEAs, can thus offset MEAs' own deficit. An example thereof can be found in the US-Peru forest governance annex (US-Peru TPA, 2006, annex 18.3.4), which specifies Peru's obligations under the CITES (1973; Jinnah, 2011). It is also impossible to rule out the possibility that a similar development occurs in relation to climate change, which has now become a key feature of FTAs (UK-Australia FTA, 2021, art. 22.5).

Third, some institutional FRPs can also enhance the bindingness of MEAs to which reference is made in (non-)forest-specific FRPs, such as the CITES (1973) or other conventions with a forest dimension. Despite MEAs being formally binding, their implementation and enforcement mechanisms often remain relatively weak, as they prioritize soft compliance mechanisms (Fitzmaurice & Redgwell, 2000; Jinnah, 2011, p. 193). For instance, the CITES (1973), which is highly relevant to forests, endorses a "supportive and non-adversarial approach (..) toward compliance matters, with the aim of ensuring long-term compliance" (CITES, 2007; Wyatt, 2021). As a result, most compliance mechanisms available under this convention are soft in nature, although they include the possibility of resorting, as a measure of last resort, to trade sanctions (Sand, 2013), and access to arbitration provided both parties consent to it (CITES, 1973, art. XVIII). This has obvious implications for the convention's effective implementation and enforcement, as it mostly relies on treaty parties' good will (Heid & Márquez-Ramos, 2023). If one follows Boyle's understanding of soft law, this lack of strong dispute settlement mechanisms (DSM) diminishes the bindingness of the CITES (1973; Boyle, 1999, pp. 909–912).

In contrast to MEAs, FTAs rely on strong, compulsory DSMs where the consent of treaty parties is not a prerequisite for a dispute to be adjudicated by an arbitral panel. The availability of these DSMs for forest-related disputes varies across FTAs depending on the approach prevailing in these countries (Velut et al., 2022). At the extreme ends of the spectrum are US FTAs that rely on strong DSMs and EFTA FTAs that are simply devoid of such provisions for environmental—and, by extension, forest-related—matters (EFTA-Indonesia CEPA, 2018, art. 8.12.2).

Where forest-related disputes can be resolved through arbitration—as is the case under US FTAs, the UK-Australia FTA (2021) and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (2016)—the enforceability and hence bindingness of certain forest-related commitments, such as those enshrined in the CITES (1973), increase consequently. This is what Jinnah (2011, p. 194) refers to as "regulatory transference", resulting from certain linkages that "function(s) to allow a weaker environmental regime to borrow the enforcement power of a stronger economic one". This is particularly true for the US-Peru forest governance sector annex (US-Peru TPA, 2006, annex 18.3.4), which spells out specific, far-reaching obligations pertaining to the implementation of the CITES (1973; Jinnah & Morgera, 2013, pp. 330–331), as well as for the USMCA (2019, art. 24.32) and the other agreements (UK-Australia FTA, 2021, art. 22.16 and 22.26) which link trade agreements to this MEA and bestow upon an arbitral tribunal the power to review treaty parties' compliance therewith and impose sanctions in case of failure to comply. There is

widespread evidence that, in the case of Peru, CITES-FTA linkages greatly contributed, at least in the short term, to the proper enforcement of the convention by Peru (Jinnah, 2011; Velut et al., 2022, pp. 216–220). Recourse to arbitration (or the threat thereof) also played a role, as evidenced by the *Peru–Forest Protection Agency* dispute (USTR, 2019), which was resolved through environmental consultations, a prerequisite for requesting the establishment of a panel (US-Peru TPA, 2006, art. 18.12).

Despite not including an extensive list of CITES-related obligations, the USMCA (2019) is also likely to enhance the implementation and enforcement of the CITES (1973) by treaty parties, even more so than other US FTAs including references to the CITES (1973; Hradilová & Svoboda, 2018, pp. 1034–1037; Marx et al., 2017, pp. 51–52). The reason for this is that, under the USMCA (2019)—unlike past US FTAs—the burden of proving that the alleged failure to perform a CITES obligation was "in a manner affecting trade or investment between the parties" rests now with the responding party, and not with the alleging party.[8] The reversal of the burden of the proof could be decisive in the current *Mexico–Porpoise Protection* dispute, should the case be brought before an arbitral panel in case of unsuccessful consultations (USTR, 2022). This latter dispute specifically pertains to Mexico's performance of its obligations under the CITES (1973), namely, the protection of two endangered fish species listed in Appendix I of the convention: the vaquita porpoise (*Phocoena sinus)* and the totoaba fish (*Totoaba macdonaldi*). Should Mexico fail to uphold its obligation under the CITES (1973) to protect certain forest species, such as the *Mahogany* or any other CITES-listed species (Eikermann, 2015, pp. 68–70), the possibility of a similar outcome—that is, a request for environmental consultations and eventually a follow-up arbitral sentence—cannot be dismissed. This also applies to the UK-Australia FTA (2021).

The enforceability of the CITES (1973) and of other MEAs with a bearing on forests is also, albeit to a lesser extent, heightened under EU FTAs and other trade agreements (UK-Norway-Lichtenstein-Iceland FTA, 2021, art. 13.14; UK-Japan CEPA, 2020, art. 16.18), which do not rely on strong US-like DSMs. These agreements equally envision the establishment of so-called "soft" judicial mechanisms that are both compulsory and can freely review treaty parties' compliance. The difference between the so-called "hard" approach and its "soft" equivalent lies in the powers of the authority reviewing parties' compliance (Hradilová & Svoboda, 2018; Jinnah & Morgera, 2013). Under EU FTAs, environmental disputes can be brought to the attention of a "panel of experts" that can adopt findings and issue recommendations. None of these are legally binding *per se*,[9] and no specific mechanism is established to ensure compliance with the panel's suggestions (EU-Vietnam FTA, 2019, art. 13.17.6). Treaty parties can resort to these DSMs in relation to a significant number of MEAs, which is undoubtedly larger than under any US FTA (Jinnah & Morgera, 2013, p. 332), including the Paris Agreement (2015), which places a specific emphasis on combatting deforestation (art. 5). Even if EU DSMs have been extensively criticized for their lack of teeth—and hence lack of effectiveness—(Marx et al., 2017; van't Wout, 2022; contra: Hradilová & Svoboda, 2018; Postnikov & Bastiaens, 2014), the fact that they enable a panel of experts to review treaty parties' compliance goes beyond compliance mechanisms available under several MEAs. For instance, under the CITES (1973), the main body

[8] Compare art. 24.4 USMCA (2019) with art. 18.2 US-Peru TPA (2006).

[9] See art. 16.18.6 UK-Japan CEPA (2020), which reads: "The Parties shall discuss actions or measures to resolve the matter in question, *taking into account* the panel's final report and its suggestions. […]" (emphasis added).

in charge of controlling compliance is the Standing Committee, which is composed of state representatives, not independent experts.

It must be noted that, in 2022, the European Commission took an important step toward reinforcing the implementation and enforcement of the environmental commitments included in EU FTAs. One of the proposed changes is the submission of environmental disputes to the standard DSM—binding arbitration, that is (European Commission, 2022). Given the number of forest-related MEAs that are typically covered by EU FTAs (e.g., CBD [1992]; Paris Agreement [2015]), the implementation of this new approach to FTA DSMs could yield significant results, even more so than US FTAs that cover a smaller number of MEAs.

4 FRPs: An additional, unwanted layer of fragmentation?

Despite FRPs' potential to contribute positively to forest governance, their existence also comes with certain risks, the main one being the creation of an additional, unwanted layer of fragmentation in relation to an already highly fragmented regime. There are two dimensions to this critique: first, one can argue that many FRPs, especially those that are forest-specific, are weak and thus unlikely to make any meaningful change (4.1); second, one can also defend that FRPs reinforce an already existing trend in international (forest) law: fragmentation (4.2).

4.1 Below the surface: Weak commitments?

If some FRPs have indeed the potential to strengthen preexisting forest rules, this is not the case for most of them. Take a closer look, and you will see that a majority of these commitments are in truth weak. This observation specifically applies to forest-specific FRPs. Non-forest-specific FRPs, for their part, pose another risk: they can, in certain circumstances, increase fragmentation. This point will be addressed in the next subsection.

Overall, FTAs, if properly designed, have proven to be adequate vehicles for diminishing the adverse effects of trade on the environment and for promoting better environmental protection (e.g., Bastiaens & Postnikov, 2017; Brandi et al., 2020). However, the effectiveness of a provision is contingent upon its design (Bastiaens & Postnikov, 2017). In that regard, many forest-specific FRPs are unlikely to produce meaningful results. The reason for this pertains, to a certain extent, to the way these provisions are phrased. As aptly demonstrated by Abbott and Snidal (2000, pp. 426–430), the credibility of a commitment depends on three factors. One of them is the degree of obligation of a given commitment—the extent to which the addressee of the rule is bound by it (Abbott et al., 2000, p. 401). An indicator is whether the language or other elements of the provision reflect signatories' intent to be legally bound by the commitment in question (Abbott et al., 2000, p. 410). One could argue that such evidence of intent is scarce in most FRPs that are forest-specific. Very often, their opening paragraph merely emphasizes treaty parties' acknowledgment of forests' importance and the need to improve their protection (EFTA-Indonesia CEPA, 2018, art. 8.8.1; UK-Australia FTA, 2021, art. 22.13; USMCA, 2019, art. 24.23.1–3). For instance, the first paragraph of art. 13.8 EU-Vietnam FTA (2019) confirms that "[t]he Parties recognise the importance of ensuring the conservation and sustainable management of forest resources in contributing to their economic, environmental and social objectives".

The degree of obligation is also low when the commitment in question can be construed as a hortatory obligation (Abbott & Snidal, 2000, p. 410). An important indicator in that regard is the commitment's formulation. Verb constructions are especially important (Bhala & Wood, 2019, p. 326). Most forest-specific FRPs do include mandatory formulations ("shall"). However, it is often in relation to so-called "best endeavor obligations", such as the obligation to "promote" or "encourage" a certain conduct or behavior (EFTA-Indonesia CEPA, 2018, art. 8.8.2; UK-Norway-Lichtenstein-Iceland FTA, 2021, art. 13.27.2) (Limenta, 2022, p. 199). The issue with such formulations and expressions is that the implementation by treaty parties of the conduct they encourage is first and foremost voluntary (Limenta, 2022, p. 196), which affects their enforceability and thus credibility.

A commitment's credibility is also determined by the extent to which it specifies without ambiguity what is expected from the treaty parties (Abbott et al., 2000, p. 401). Precise commitments, in that sense, constrain treaty parties' opportunities for "self-serving auto interpretation", which is furthermore deterred when a judicial or arbitral tribunal is empowered with the power to review compliance therewith (Abbott & Snidal, 2000, p. 427). They must be contrasted with rules that are "open-textured in the sense that there is considerable uncertainty concerning their specific content and they leave much room for interpretation and elaboration" (Boyle, 1999, p. 908). Like MEAs (Boyle, 2021, pp. 430–431), forest-specific FRPs include ambiguously worded commitments when they fail to mention which steps treaty parties ought to take, for instance, to combat illegal logging (EU-Vietnam FTA, 2019, art. 13.8.2(c); UK-Japan CEPA, 2020, art. 16.7.2[b]; USMCA, 2019, art. 24.23.4[b]). Brought before a panel of experts or arbitral panel, a treaty party's claim that the other party has failed to take any substantial step to reduce illegal logging will certainly fail as long as the defending party can prove that it has taken any measure. It is interesting to note that this deficit of precision first and foremost concerns commitments with a high degree of obligation. For instance, parties' undertaking to "promote" a certain conduct are often highly specific (EFTA-Indonesia CEPA, 2018, art. 8.8.2[c]), whereas obligations "to take" certain measures are very concise (UK-Australia FTA, 2021, art. 22.13.3).

This combination of low levels of obligation and precision means that most (forest-specific) FRPs lack the ability to induce meaningful changes in parties' behavior toward forests, thereby remaining ineffective. If one thinks of EFTA FTAs that are devoid of DSMs, the situation is particularly dire. This, however, even holds true for the US-Peru TPA (2006), which includes some of the more far-reaching, prescriptive and enforceable FRPs, but the effectiveness of which has been doubted (Peinhardt et al., 2019; Velut et al., 2022, pp. 218–221). The perceived inadequacy of certain FRPs for protecting forests has also triggered strong reactions within civil society. For instance, in Switzerland, the infamous EFTA-Indonesia CEPA (2018) was almost refused by voters in 2021 after a committee composed of nongovernmental organizations and other members of the civil society launched a referendum against it (Etwareea, 2020). One of the opponents' greatest concerns was the threat posed by further trade liberalization to forests and the risk of intensified deforestation stemming from palm oil plantations. Similarly, the EU recently suspended negotiations with Mercosur countries over a new FTA and requested that additional commitments to halt deforestation be included in the agreement before negotiations could resume (Bounds & Harris, 2023). These events raise serious concerns about the capacity of FRPs to mitigate the adverse impact of FTAs on forests.

4.2 Increased fragmentation: Is more always better?

If the above-described apparent lack of effectiveness may, alone, reasonably lead one to question the merit of FRPs, there is a second important risk to consider. The existence of FRPs indeed adds a level of fragmentation to an already highly fragmented IFR. And with it comes all the numerous implications that fragmentation entails, including conflicts of norms (ILC, 2006). IEL is generally not alien to fragmentation. The identification, starting in the 1970s, of new environmental matters warranting global protection sparked multiple initiatives that resulted in the adoption of international treaties. This has caused many observers to criticize the lack of efficiency of this new field of international law characterized by an always increasing number of environmental treaties—which some refer to as "treaty congestion" (Brown Weiss, 1993). In the absence of coordinating authority, MEAs have developed in parallel from one another, which caused important overlaps (Wolfrum & Matz-Lück, 2003, p. 2). These overlaps could "either take the form of a doubling of efforts concerning a particular problem or as a contradiction or conflict between the objectives, programs or means of the respective agreements" (Wolfrum & Matz-Lück, 2003, p. 2).

In the case of forests, the risk of fragmentation and thus of conflict between rules governing forests is further heightened by what one may refer to as "ecological interdependencies" (Wolfrum & Matz-Lück, 2003, p. 4). If we recall what was said above about forests' functions, one can easily see where the problem lies: forests are key to addressing many contemporary environmental challenges, including but not limited to biodiversity loss and climate change (van Asselt, 2012, pp. 1213–1214). As a result, the biodiversity treaty regime (CBD, 1992) and the climate change regime (viz. the Kyoto Protocol [1997], the UNFCCC [1992] and the Paris Agreement [2015]) incorporate rules having a bearing on forests (e.g., UNFCCC, 1992, art. 4; Humphreys, 2009, pp. 191–204). The fact that these two regimes pursue different objectives and require different solutions creates potential for conflict (Wolfrum & Matz-Lück, 2003, pp. 78–93).[10] For instance, and using van Asselt's example (2012, pp. 1231–1236), the emphasis placed by the Kyoto Protocol (1997) on emission reduction, including through the creation of carbon sinks, could have repercussions on forest biodiversity, which the CBD (1992) seeks to protect. In recent years, this risk has been mitigated by the adoption of REDD + (Harvey et al., 2010; for a preliminary assessment, see Kapos et al., 2022).

FTAs have the potential to intensify this risk of conflict between preexisting forest-related commitments. This has to do with the fact that, when reference is made to MEAs in FRPs, treaty parties may be forced to make a difficult choice when complying with some rules—let's say climate change commitments—can mean breaching others, such as biodiversity obligations. For instance, EU FTAs typically include linkages to both the climate change and biodiversity regimes (EU-Vietnam FTA, 2019, art. 13.6–13.7). Parties may, as a result, be left with a dilemma about which rules to prioritize. In the event of conflicts between treaty commitments, FTAs sometimes include rules of conflict.[11] These, as in the case of the USMCA (2019) or other US FTAs, generally afford priority to MEAs for those covered by the agreement (USMCA, 2019, art. 1.3). Such rules will be useful in cases where a trade commitment runs counter to a treaty party's obligation under an MEA.

[10] These authors also identify another potential area of friction where forests are concerned: desertification to which the Convention to Combat Desertification (1994) and CBD (1992) apply (Wolfrum & Matz-Lück, 2003, pp. 96–99).

[11] In addition to these specific rules, international law knows rules of conflict that apply to any situation or that are specifically set forth by MEAs (Wolfrum & Matz-Lück, 2003, pp. 120–158).

However, they do not apply to conflicts, in the case of the USMCA (2019), with noncovered MEAs (such as the CBD [1992]) or between MEAs. Even if such rules make it easier to navigate certain conflicts, the fact that they do not cover all constellations of conflicts between forest-related commitments calls for careful consideration.

Fragmentation can also result from conflicting decisions from judicial or arbitral authorities. Fragmentation indeed stems not only from treaty proliferation in various special regimes of international law but also from the multiplicity of adjudicative mechanisms that have burgeoned along these new treaties (Alter, 2012). Tribunals, according to some international lawyers, may contribute to international law's fragmentation by issuing inconsistent decisions, thereby fueling additional conflicts (Koskenniemi & Leino, 2002, pp. 554–555, 562). When one thinks about how disputes are resolved under FTAs, one can immediately see the problem. As trade agreements submit disputes to *ad hoc* arbitral tribunals that are not bound by precedents, there is considerable risk that decisions issued by these arbitral authorities are, in relation to the same legal question, inconsistent. This is what happened with investment arbitration (e.g., Franck, 2005; Ratner, 2008). Disputes arising out FRPs, be they forest-specific or not, could then result in contradictory judgments and different interpretations.

This risk of fragmentation is further complicated by the composition of the bodies empowered to review compliance with FRPs—trade experts, that is. This risk of inconsistent interpretation is, Alvarez (2016a, 2016b) warns, further heightened by the fact that international treaty regimes are seldom self-contained and inevitably interact with other regimes through linkages (Lang, 2007). In such situations, adjudicators are often led to engage in "boundary crossing" interpretation when the dispute at hand features elements that are also within the remit of other treaty regimes (Alvarez, 2016a, pp. 58–73), as is the case for many trade-environment linkages. How can one then be sure that an arbitral panel established under, let's say, the USMCA (2019) has the necessary expertise to adjudicate a dispute whereby one party alleges that another has failed to abide by its forest-related commitments under the CITES (1973)? Although FTAs normally include procedural safeguards—such as the obligation for arbitrators to seek advice or guidance from MEA bodies (USMCA, 2019, art. 24.32.2[a]) or the requirement for experts to have specific expertise in environmental law (EU-Vietnam FTA, 2019, art. 13.17.4), the risk of inconsistent—even incorrect—rulings persists and is too important to be ignored. The same issue has been raised with regard to investment arbitration (Fermeglia, 2023).

5 Conclusion: the way forward

This article's ambition has been to provide a preliminary assessment of the risks and opportunities associated with the way FTAs regulate forests. So doing, it has been able to show that for each opportunity, there is also a drawback. If FRPs generally enable the advancement of the IFR, they are often weak and thus unlikely to make any meaningful improvement. Likewise, if FRPs can strengthen MEA-forest commitments, this may also result in greater fragmentation. What follows is that regulating forests through FTAs comes with both benefits and risks that must be carefully balanced. This calls for further discussion on the place and role of FTAs in international forest law. Further examination of these trade-forest linkages is indeed necessary, as they "are key to our understanding of how interactions between international regimes affect regimes effectiveness" (Jinnah, 2011, p. 193). If we are to enhance forest protection through international rules, we simply

cannot afford to ignore these linkages, as they are part and parcel of the international law pertaining to forests.

This article's incidental intent was also to offer a few insights into the fitness of trade law in regulating and enforcing forest-related rules, be they novel or included in MEAs. The risk of fragmentation identified in the above subsection specifically challenges the adequacy of bilateral and plurilateral negotiations in relation to forests where the outcome is primarily determined by the negotiation partners' economic power and the leverage asymmetries that result therefrom and where opportunities for pursuing economic, self-serving interests are abundant. This makes it essential to make sure that these rules are adopted for the benefit of all members of the international community. This undoubtedly calls for a global, common approach to forests—including forest-trade linkages—to ensure that these rules are specifically designed to protect forests and, by extension, the world society in which we live.

Acknowledgements My appreciation goes to Dr. Justine Bendel and the staff of the University of Copenhagen for organizing the "Forests at the crossroads of international law" conference (Copenhagen, September 4-5, 2023). I am also grateful to the conference participants, particularly Flaminia Dahinden, and two anonymous reviewers for their valuable comments and remarks.

Funding Open access funding provided by University of Fribourg. No funding was received to assist with the preparation of this article.

Declarations

Conflict of interest The author has no competing interests to declare that are relevant to the content of this article.

References

Abbott, K. W., Keohane, R. O., Moravcsik, A., Slaughter, A.-M., & Snidal, D. (2000). The concept of legalization. *International Organization, 54*(3), 401–419. https://doi.org/10.1162/002081800551271

Abbott, K. W., & Snidal, D. (2000). Hard and soft law in international governance. *International Organization, 54*(3), 421–456. https://doi.org/10.1162/002081800551280

Abman, R., & Lundberg, C. (2020). Does free trade increase deforestation? The effects of regional trade agreements. *Journal of the Association of Environmental and Resource Economists, 7*(1), 35–72. https://doi.org/10.1086/705787

Agreement on the Application of Sanitary and Phytosanitary Measures, April 15, 1994, https://www.wto.org/english/tratop_e/sps_e/spsagr_e.htm

Alter, K. J. (2012). The multiple roles of international courts and tribunals : enforcement, dispute settlement, constitutional and administrative review. In J. L. Dunoff & M. A. Pollack (Eds.), *Interdisciplinary Perspectives on International Law and International Relations* (pp. 345–370). Cambridge University Press. https://doi.org/10.1017/CBO9781139107310.018

Alvarez, J. E. (2016a). Beware: Boundary crossings. In T. Kahana & A. Scolnicov (Eds.), *Boundaries of state, boundaries of rights* (pp. 43-93). Cambridge University Press. https://doi.org/10.1017/CBO9781107588943.004

Alvarez, J. E. (2016b). 'Beware : Boundary Crossings': A critical appraisal of public law approaches to international investment law. *The Journal of World Investment and Trade, 17*(2), 171–228. https://doi.org/10.1163/22119000-01702001

Bahri, A., & Lugo, M. (2020). Trumping capacity gap with negotiation strategies: The Mexican USMCA negotiation experience. *Journal of International Economic Law, 23*(1), 1–23. https://doi.org/10.1093/jiel/jgz029

Bastiaens, I., & Postnikov, E. (2017). Greening up: The effects of environmental standards in EU and US trade agreements. *Environmental Politics, 26*(5), 847–869. https://doi.org/10.1080/09644016.2017.1338213

Berger, A., Brandi, C., Morin, J.-F., & Schwab, J. (2020). The trade effects of environmental provisions in preferential trade agreements. In C. Beverelli, J. Kurtz, & D. Raess (Eds.), *International trade, investment, and the sustainable development goals* (pp. 111–139). Cambridge University Press. https://doi.org/10.1017/9781108881364.006

Bernauer, T., & Nguyen, Q. (2015). Free trade and/or environmental protection? *Global Environmental Politics, 15*(4), 105–129. https://doi.org/10.1162/GLEP_a_00327

Besson, S. (2010). Theorizing the sources of international law. In S. Besson & J. Tasioulas (Eds.), *The philosophy of international law* (pp. 164–185). Oxford University Press.

Bhala, R., & Wood, C. N. (2019). Two dimensional hard-soft law theory and the advancement of women's and LGBTQ + rights through free trade agreements. *Georgia Journal of International and Comparative Law, 47*(2), 302–366.

Blümer, D., Morin, J.-F., Brandi, C., & Berger, A. (2020). Environmental provisions in trade agreements: Defending regulatory space or pursuing offensive interests? *Environmental Politics, 29*(5), 866–889. https://doi.org/10.1080/09644016.2019.1703383

Bounds, A., & Harris, B. (2023). EU trade deal with South America delayed by row over environmental rules. *Financial Times*. https://www.ft.com/content/94d2410b-c3c1-4e0b-ad50-6144b310c75f?signupConfirmation=success

Boyle, A. E. (1999). Some reflections on the relationship of treaties and soft law. *The International and Comparative Law Quarterly, 48*(4), 901–913. https://doi.org/10.1017/S0020589300063739

Boyle, A. E. (2021). Soft law. In L. Rajamani & J. Peel (Eds.), *The Oxford handbook of international environmental law* (2nd ed., pp. 420–435). Oxford University Press. https://doi.org/10.1093/law/9780198849155.003.0025

Brandi, C., Schwab, J., Berger, A., & Morin, J.-F. (2020). Do environmental provisions in trade agreements make exports from developing countries greener? *World Development, 129*, 104899. https://doi.org/10.1016/j.worlddev.2020.104899

Braun, J. von. (2013). *The Domestic Politics of Negotiating International Trade: Intellectual Property Rights in US-Colombia and US-Peru Free Trade Agreements*. Routledge.

Brown Weiss, E. (1993). International environmental law: Contemporary issues and the emergence of a new world order. *Georgetown Law Journal, 81*(3), 675–710.

Brunnée, J., & Nollkaemper, A. (1996). Between the forests and the trees: An emerging international forest law. *Environmental Conservation, 23*(4), 307–314. https://doi.org/10.1017/S0376892900039163

Chandrasekhar, A. (2021). Are the sustainability criteria in the Swiss trade deal with Indonesia toothless? *Swissinfo.ch*. https://www.swissinfo.ch/eng/business/are-the-sustainability-criteria-in-the-swiss-trade-deal-with-indonesia-toothless-/46383574

CITES. (2007). *CITES compliance procedures*. Res. Conf. 14.3. https://cites.org/eng/res/14/index.php

Comprehensive and Progressive Agreement for Trans-Pacific Partnership, February 4, 2016, https://www.iilj.org/wp-content/uploads/2018/03/CPTPP-consolidated.pdf

Convention on Biological Diversity, June 5, 1992, https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-8&chapter=27

Convention on International Trade in Endangered Species of Wild Fauna and Flora, March 3, 1973, https://treaties.un.org/pages/showDetails.aspx?objid=0800000280105383

Convention on Wetlands of International Importance Especially as Waterfowl Habitats, February 2, 1971, https://treaties.un.org/pages/showDetails.aspx?objid=0800000280104c20

Durán Garcia, M. (2020). Sustainable development chapters in EU free trade agreements: Emerging compliance issues. *Common Market Law Review, 57*(4), 1031–1068. https://doi.org/10.54648/cola2020715

EFTA-Ecuador Comprehensive Economic Partnership Agreement, June 25, 2018, https://www.efta.int/trade-relations/free-trade-network/ecuador

EFTA-Indonesia Comprehensive Economic Partnership Agreement, December 16, 2018, https://www.efta.int/trade-relations/free-trade-network/indonesia

Eikermann, A. (2015). Forests in international law: Is there really a need for an international forest convention? *Springer International*. https://doi.org/10.1007/978-3-319-14950-9

Etwareea, R. (2020). Les grandes ONG suisses rejettent le référendum «Stop huile de palme». *Le Temps*. https://www.letemps.ch/economie/grandes-ong-suisses-rejettent-referendum-stop-huile-palme

EU-Canada Comprehensive Economic and Trade Agreement, October 30, 2016, https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/canada/eu-canada-agreement/ceta-chapter-chapter_en

EU-Chile Interim Trade Agreement, December 13, 2023, https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/chile/eu-chile-agreement/text-agreement_en

EU-Indonesia Forest Law Enforcement, Governance and Trade Voluntary Partnership Agreement, September 30, 2014, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:22014A0520(02)&from=EN

EU-Japan Economic Partnership Agreement, July 17, 2018, https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/japan/eu-japan-agreement/eu-japan-agreement-chapter-chapter_en

EU-Vietnam Free Trade Agreement, June 30, 2019, https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/vietnam/eu-vietnam-agreement/texts-agreements_en

European Commission. (2022). *Press release: Commission unveils new approach to trade agreements to promote green and just growth*. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_3921

FAO. (2020). Global forest resources assessment 2020. *FAO*. https://doi.org/10.4060/ca8753en

Faria, W. R., & Almeida, A. N. (2016). Relationship between openness to trade and deforestation: Empirical evidence from the Brazilian Amazon. *Ecological Economics, 121*, 85–97. https://doi.org/10.1016/j.ecolecon.2015.11.014

Fermeglia, M. (2023). Adjudicating environmental matters before investor-state dispute settlement tribunals: A question of legitimacy. In G. Antonelli, M. Gerrard, S. Colangelo, G. Montedoro, M. Santise, L. Lavrysen, & M. V. Ferroni (Eds.), *Environmental law before the courts* (pp. 325-342). Springer International. https://doi.org/10.1007/978-3-031-41527-2_13

Fitzmaurice, M. A., & Redgwell, C. (2000). Environmental non-compliance procedures and international law. *Netherlands Yearbook of International Law, 31*, 35–65. https://doi.org/10.1017/S0167768000001021

Franck, S. D. (2005). The legitimacy crisis in investment treaty arbitration: Privatizing public international law through inconsistent decisions. *Fordham Law Review, 73*(4), 1521–1625.

General Agreement on Tariffs and Trade, April 15, 1994, https://treaties.un.org/pages/showDetails.aspx?objid=08000002800ade6c

Giessen, L. (2013). Reviewing the main characteristics of the international forest regime complex and partial explanations for its fragmentation. *International Forestry Review, 15*, 60–70. https://doi.org/10.1505/146554813805927192

Gonzalez, C. G. (2001). Beyond eco-imperialism: An environmental justice critique of free trade. *Denver Law Review, 78*(4), 979–1016.

Grove, R. (1997). *Green imperialism: Colonial expansion, tropical island Edens and the origins of environmentalism, 1600–1860*. Cambridge University Press.

Gruber, L. (2000). *Ruling the world: Power politics and the rise of supranational institutions*. Princeton University Press. https://doi.org/10.2307/j.ctt7s8w1

Harvey, C. A., Dickson, B., & Kormos, C. (2010). Opportunities for achieving biodiversity conservation through REDD. *Conservation Letters, 3*(1), 53–61. https://doi.org/10.1111/j.1755-263X.2009.00086.x

Heid, B., & Márquez-Ramos, L. (2023). International environmental agreements and imperfect enforcement: Evidence from CITES. *Journal of Environmental Economics and Management, 118*, 102784. https://doi.org/10.1016/j.jeem.2023.102784

Hradilová, K., & Svoboda, O. (2018). Sustainable development chapters in the EU free trade agreements: Searching for effectiveness. *Journal of World Trade, 52*(6), 1019–1042. https://doi.org/10.54648/trad2018044

Humphreys, D. (2005). The elusive quest for a global forests convention. *Review of European Community and International Environmental Law, 14*(1), 1–10. https://doi.org/10.1111/j.1467-9388.2005.00418.x

Humphreys, D. (2006). *Logjam: Deforestation and the Crisis of Global Governance*. Earthscan.

Humphreys, D. (2008). The politics of 'Avoided Deforestation': Historical context and contemporary issues. *International Forestry Review, 10*(3), 433–442. https://doi.org/10.1505/ifor.10.3.433

ILC. (2006). *Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law. Report of the Study Group of the International Law Commission*, UN Doc. A/CN.4/L.682. https://legal.un.org/ilc/documentation/english/a_cn4_l682.pdf

International Tropical Timber Agreement, November 18, 1983, https://treaties.un.org/Pa-ges/ViewDetails.aspx?src=TREATY&mtdsg_no=XIX-26&chapter=19&clang=_en

Jinnah, S. (2011). Strategic linkages: The evolving role of trade agreements in global environmental governance. *The Journal of Environment & Development, 20*(2), 191–215. https://doi.org/10.1177/1070496511405152

Jinnah, S., & Morgera, E. (2013). Environmental provisions in American and EU free trade agreements: A preliminary comparison and research agenda. *Review of European Comparative and International Environmental Law, 22*(3), 324–339. https://doi.org/10.1111/reel.12042

Johnson, S. P. (1993). *The Earth summit: The United Nations Conference on environment and development (UNCED)*. Graham & Trotman.

Kapos, V., Vira, B., Harris, M., O'Leary, A., & Wilson, R. (2022). Influence of REDD+ Implementation on biodiversity, livelihoods and well-being. In J. Parrotta, S. Mansourian, C. Wildburger, & N. Grima (Eds.), *Forests, climate, biodiversity and people: Assessing a decade of REDD+* (pp. 85–109). International Union of Forest Research Organizations.

Khalastchi, R., & Mackenzie, R. (1999). The conservation and sustainable use of forest biological diversity: The role of the convention on biological diversity. In R. G. Tarasofsky (Ed.), *Assessing the international forest regime* (pp. 38–62). International Union for Conservation of Nature.

Koo, M. G., & Kim, S. Y. (2018). East Asian way of linking the environment to trade in free trade agreements. *The Journal of Environment and Development, 27*(4), 382–414. https://doi.org/10.1177/1070496518794234

Koskenniemi, M., & Leino, P. (2002). Fragmentation of international law? Postmodern anxieties. *Leiden Journal of International Law, 15*(3), 553–579. https://doi.org/10.1017/S0922156502000262

Krasner, S. D. (1982). Structural causes and regime consequences: Regimes as intervening variables. *International Organization, 36*(2), 185–205. https://doi.org/10.1017/S0020818300018920

Krugman, P. (1997). What should trade negotiators negotiate about. *Journal of Economic Literature, 35*(1), 113–120.

Kyoto Protocol to the United Nations Framework Convention on Climate Change, December 11, 1997, https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-a&chapter=27&clang=_en

Lang, A. T. F. (2007). Reflecting on 'Linkage': Cognitive and institutional change in the international trading system. *The Modern Law Review, 70*(4), 523–549. https://doi.org/10.1111/j.1468-2230.2007.00651.x

Limenta, M. (2022). Toward an ASEAN-EU FTA: Examining the trade and sustainable development chapter in the prospective Indonesia-EU CEPA. *Legal Issues of Economic Integration, 49*(2), 191–216. https://doi.org/10.54648/leie2022009

Maguire, R. (2013). Global forest governance: Legal concepts and policy trends. *Edward Elgar*. https://doi.org/10.4337/9780857936073

Marx, A., Ebert, F., & Hachez, N. (2017). Dispute settlement for labour provisions in EU free trade agreements: Rethinking current approaches. *Politics and Governance, 5*(4), 49–59.

Menezes, R. G., Mariano, K. L. P., & Contrera, F. (2022). Hard times: The United States and Mexico in NAFTA's "Renegotiation" process. *Contexto Internacional*. https://doi.org/10.1590/s0102-8529.20224402e20200112

Monteiro, J.-A., & Trachtman, J. P. (2020). Environmental laws. In A. Mattoo, N. Rocha, & M. Ruta (Eds.), *Handbook of deep trade agreements* (pp. 553–581). Stand Alone Books. https://doi.org/10.1596/978-1-4648-1539-3

North American Agreement on Environmental Cooperation, September 14, 1993, https://ustr.gov/sites/default/files/naaec.pdf

North American Free Trade Agreement, December 17, 1992, https://www.italaw.com/sites/default/files/laws/italaw6187%2814%29.pdf

Pacheco, Y. V. (2020). Addressing forest governance and sustainable forest management in preferential trade agreements. *ESIL SSRN Conference Paper Series, 13*(12), 1–20.

Pacheco, Y. V. (2023). Regime interaction in international forest law: The role of secondary law of forest-related multilateral environmental agreements. *Brill/Nijhoff*. https://doi.org/10.1163/9789004678040

Paris Agreement, December 12, 2015, https://treaties.un.org/Pages/ViewDetails.aspx?src=TR-EATY&mtdsg_no=XXVII-7-d&chapter=27&clang=_en

Peinhardt, C., Kim, A. A., & Pavon-Harr, V. (2019). Deforestation and the United States-Peru trade promotion agreement. *Global Environmental Politics, 19*(1), 53–76. https://doi.org/10.1162/glep_a_00498

Persson, R. (2005). Where is the United Nations forum on forests going? *International Forestry Review, 7*(4), 348–357. https://doi.org/10.1505/ifor.2005.7.4.348

Postnikov, E., & Bastiaens, I. (2014). Does dialogue work? The effectiveness of labor standards in EU preferential trade agreements. *Journal of European Public Policy, 21*(6), 923–940. https://doi.org/10.1080/13501763.2014.910869

Rajamani, L. (2016). The 2015 Paris agreement: Interplay between hard, soft and non-obligations. *Journal of Environmental Law, 28*(2), 337–358. https://doi.org/10.1093/jel/eqw015

Rametsteiner, E., & Simula, M. (2003). Forest certification—An instrument to promote sustainable forest management? *Journal of Environmental Management, 67*(1), 87–98. https://doi.org/10.1016/S0301-4797(02)00191-3

Ratner, S. R. (2008). Regulatory takings in institutional context: Beyond the fear of fragmented international law. *American Journal of International Law, 102*(3), 475–528. https://doi.org/10.2307/20456640

Roughan, N. (2018). Sources and the normativity of international law: From validity to justification. In S. Besson & J. d'Aspremont (Eds.), *The Oxford handbook of the sources of international law* (pp. 680–700). Oxford University Press. https://doi.org/10.1093/law/9780198745365.003.0033

Sahakyan, D. (2016). Reassessing North-South relations: The case of North-South preferential trade agreements. *Journal of International Trade Law Policy, 15*(1), 51–66. https://doi.org/10.1108/JITLP-11-2015-0040

Sand, P. H. (2013). Enforcing CITES: the rise and fall of trade sanctions. *Review of European Comparative and International Environmental Law, 22*(3), 251–263. https://doi.org/10.1111/reel.12037

Sicurelli, D. (2015). The EU as a Norm Promoter Through Trade. The Perceptions of Vietnamese Elites. *Asia Europe Journal*, *13*(1), 23-39. https://doi.org/10.1007/s10308-014-0407-5

UK-Australia Free Trade Agreement, December 16, 2021, https://www.gov.uk/government/collections/free-trade-agreement-between-the-united-kingdom-of-great-britain-and-northern-ireland-and-australia

UK-Japan Comprehensive Economic Partnership Agreement, October 23, 2020, https://www.gov.uk/government/publications/ukjapan-agreement-for-a-comprehensive-economic-partnership-cs-japan-no12020

UK-Norway-Lichtenstein-Iceland Free Trade Agreement, July 8, 2021, https://www.gov.uk/government/publications/free-trade-agreement-between-iceland-the-principality-of-liechtenstein-and-the-kingdom-of-norway-and-the-united-kingdom-of-great-britain-and-northern

UNCED. (1992a). *Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of all types of Forests*. UN Doc. A/CONF.151/6. https://digitallibrary.un.org/record/144461?ln=fr

UNCED. (1992b). *Agenda 21*. UN Doc. A/CONF.151/ 26/Rev. 1. https://sustainabledevelopment.un.org/outcomedocuments/agenda21

United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification (Particularly in Africa), October 14, 1994, https://catalogue.unccd.int/936_UNCCD_Convention_ENG.pdf%20was%20adopted%20on,1883-%20of%20the%20General

United Nations Framework Convention on Climate Change, May 9, 1992, https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXVII-7&chapter=2-7&Temp=mtdsg3&clang=_en

United States-Mexico-Canada Agreement, December 10, 2019, https://ustr.gov/trade-agreements/free-trade-agreements/united-states-mexico-canada-agreement/agreement-between

US-Mexico Environment Cooperation and Customs Verification Agreement, December 10, 2019, https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/Text/Environment-Cooperation-and-Customs-Verification-Agreement.pdf

US-Peru Trade Promotion Agreement, April 12, 2006, https://ustr.gov/trade-agreements/free-trade-agreements/peru-tpa/final-text

USTR. (2019). Press release: USTR requests first-ever environment consultations under the U.S.-Peru Trade Promotion Agreement (PTPA). *Office of the U.S. Trade Representative*. https://ustr.gov/about-us/policy-offices/press-office/press-releases/2019/january/ustr-requests-first-ever

USTR. (2022). Press release: USTR Announces USMCA Environment Consultations with Mexico. *Office of the U.S. Trade Representative*. https://ustr.gov/about-us/policy-offices/press-office/press-releases/2022/february/ustr-announces-usmca-environment-consultations-mexico

van Asselt, H. (2012). Managing the fragmentation of international environmental law: Forests at the intersection of the climate and biodiversity regimes. *New York University Journal of International Law and Politics, 44*(4), 1205–1278.

Velut, J.-B., Baeza-Breinbauer, D., De Bruijne, M., Garnizova, E., Jones, M., Kolben, K., Oules, L., Rouas, V., Tigere Pittet, F., & Zamparutti, T. (2022). Comparative analysis of trade and sustainable development provisions in free trade agreements. *LSE Consulting Report*. https://trade.ec.europa.eu/doclib/docs/2022/february/tradoc_160043.pdf

Wang, S. (2001). Towards an international convention on forests: Building blocks versus stumbling blocks. *International Forestry Review, 3*(4), 251–264.

Williams, M. (2003). *Deforesting the earth: From prehistory to global crisis*. University of Chicago Press.

Wolfrum, R., & Matz-Lück, N. (2003). *Conflicts in international environmental law*. Springer International.

van'tWout, D. (2022). The enforceability of the trade and sustainable development chapters of the European Union's free trade agreements. *Asia Europe Journal, 20*, 81–98. https://doi.org/10.1007/s10308-021-00627-1

Wyatt, T. (2021). *Is CITES protecting wildlife?* Routledge.

Young, M. A. (2021). Fragmentation. In L. Rajamani & J. Peel (Eds.), *The Oxford Handbook of International Environmental Law* (2nd ed., pp 85–100). Oxford University Press. https://doi.org/10.1093/law/9780198849155.003.0005

Zon, R. (1920). Forests and human progress. *Geographical Review, 10*(3), 139–166.