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POLICY BRIEF

Voluntary Sustainability Standards, Forest Conservation, and Environmental Provisions in International Trade Policy

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1.0 Introduction

Forests are essential to human well-being. In addition to providing humanity with clean oxygen and safe water and contributing to soil health and fertility, forests absorb around 2.6 billion tonnes of carbon dioxide every year, making them critical in mitigating climate change. As importantly, according to the Food and Agriculture Organization of the United Nations (FAO), forests are home to 80% of terrestrial biodiversity, and approximately 1.6 billion people rely on them for their livelihoods (FAO & United Nations Environment Programme [UNEP], 2020).

Notwithstanding their critical role, progress in tackling deforestation in recent years has been insufficient. While the global net loss of forest area[1] has decreased from 7.8 million hectares per year in the 1990s to 4.7 million hectares per year from 2010 to 2020, global deforestation rates are still very high and remain highly problematic in Africa and South America. In Asia, the effects of deforestation also persist. However, the region had net gains in forest area in the period 1990–2020, with over 20% of forests being regenerated through plantations (FAO, 2020b; FAO & UNEP 2020; New York Declaration on Forests Assessment Partners, 2019).

There is a growing level of awareness among actors involved in international trade, such as end consumers, value chain actors, governments, and policy-makers, of the apparent need to protect forests. In response to such growing concerns, public and private sector actors alike have designed and implemented various measures and instruments associated with international trade to reduce deforestation linked to forest commodities such as cocoa, palm oil, soybean, and timber (Garret et al, 2019; Lambin et al., 2018; Pirard et al., 2015).

[1] According to FAO (2020a, p. 2), forest area net change is "the sum of all forest losses (deforestation) and all forest gains (forest expansion) in a given period. Net change, therefore, can be positive or negative, depending on whether gains exceed losses, or vice versa."

These measures include voluntary sustainability standards (VSSs), largely designed by civil society organizations and the private sector, requiring participating producers and operators to comply with verifiable or certifiable environmental and social criteria and forest conservation provisions in free trade agreements (FTAs). Moreover, these VSSs are increasingly included in FTAs to promote forest conservation objectives, with a number of dedicated provisions either expressly referencing them or incorporating them into the text.

In this context, the International Institute for Sustainable Development hosted a webinar, with the support of the Government of the United Kingdom, on March 24, 2021. The event explored how VSSs could assist in reducing deforestation while assessing the opportunities and limitations of integrating VSSs in international trade agreements. This commentary presents the main issues examined in the webinar. Section 2 describes the main components of VSSs; identifies the characteristics of a select number of them operating in the cocoa, palm oil, soybean, and timber sectors; and examines their potential role in reducing deforestation and conserving forests. Section 3 explores existing provisions and measures included in international trade agreements concerning forest conservation in general. Building upon the preceding sections, Section 4 analyzes potential synergies between measures embedded in international trade agreements and VSSs and what these synergies mean for tackling deforestation and enhancing forest conservation on a large scale. The section also briefly touches upon new policy approaches on forest conservation provisions in trade agreements before raising some policy questions and offering concluding remarks in Section 5.

2.0 Voluntary Sustainability Standards

The United Nations Forum on Sustainability Standards (UNFSS) defines VSSs as "standards specifying requirements that producers, traders, manufacturers, retailers or service providers may be asked to meet, relating to a wide range of sustainability metrics, including respect for basic human rights, worker health and safety, the environmental impacts of production, community relations, land use planning and others" (United Nations Forum on Sustainability Standards, 2013, p. 4).

VSSs vary significantly in their design, implementation, and assurance approaches to meet their specific sustainable development objectives. They typically consist of three elements: (1) a set of criteria they require producers and operators to comply with (design); (2) the activities implemented to support producers adopting their standard, which often consist of new production practices, including training and extension services, enabling market relationships, and access to inputs (implementation); and (3) the procedures implemented to verify and certify the compliance of farming practices against these criteria (assurance).

VSSs may be developed at the local, national, or international level by public and private organizations alike. For instance, the Malaysian and Indonesian sustainable palm oil standards are both public-led VSSs, while the Roundtable for Sustainable Palm Oil (RSPO) was developed by non-government organizations in partnership with the private sector. In essence, VSSs constitute governance systems aimed at enhancing sustainability in value chains by addressing product quality and attributes, as well as production and processing methods (UNCTAD, 2020).

The Role of VSSs in Reducing Deforestation and Enhancing Forest Conservation

Design: VSSs define criteria associated with reducing deforestation that farmers and operators are required to observe.

A VSS's potential to prevent and reverse deforestation largely depends on the commodity sector in which it operates. After analyzing the design of a selection of VSSs operating across four forest commodities considered to be drivers for deforestation (cocoa, palm oil, soybean, and timber), we observe that all of them have criteria for protecting the environment.

The VSSs examined are Fairtrade International, Rainforest Alliance, Organic, RSPO, International Sustainability and Carbon Certification (ISCC), Round Table for Responsible Soybean (RTRS), ProTerra Certification Standard, Forest Stewardship Council (FSC), and the Program for Endorsement of Forest Certification (PEFC).

Table 1 illustrates how a select number of environmentally friendly practices align with the criteria of the VSSs listed above. These VSSs may seek to preserve the environment directly—through requirements for producers to maintain natural habitats and ecosystems and preserve biodiversity—or indirectly, by requiring producers to lower pesticide use and greenhouse gas emissions.

These VSSs also include specific criteria for preventing deforestation and protecting forests. The main difference relates to the cut-off dates associated with land conversion practices that convert forest land into agricultural land (see Table 2). For example, in theory, the Rainforest Alliance and RSPO schemes do not certify operations that have converted areas with high biodiversity conservation value for carbon stock, which largely includes forests, after 2014 and 2005, respectively,[2] whereas the cut-off date for the ProTerra certification standard is 2008.

The Organic standard is more flexible since farmers need to show that they have not converted valuable natural environments to agricultural land 5 years prior to becoming certified Organic. Both approaches have their advantages and disadvantages as it pertains to preventing deforestation. For instance, while a static cut-off date offers more guarantee that forests have not been converted since that date, it also prevents land areas from becoming VSS-compliant if deforestation has occurred after the cut-off date, which can be a missed opportunity to prevent further deforestation (de Koening & Wiegant, 2017).

[2] Before the merger of UTZ and Rainforest Alliance, Rainforest Alliance's cut-off date was 2005 according to Critical Criteria 2.1 in Rainforest Alliance's *Sustainable Agriculture Standard* (Rainforest Alliance, 2017). The UTZ Code of Conduct has prohibited deforestation or degradation of primary forests since 2008. After the merger of the two standards, the new cut-off date for Rainforest Alliance became January 1, 2014, in line with market and sectoral commitments and to facilitate forest monitoring and data collection (Rainforest Alliance, 2020c). Criteria 7.12. in *RSPO Principles & Criteria for the Production of Sustainable Palm Oil 2018* (RSPO, 2018).

Table 1. VSS design on environmental protection: Alignment between environmentally friendly practices and required (✔), recommended (o), or absent (—) production criteria of VSSs for cocoa, palm oil, soy, and timber

		Environment Protection				
Sustainability standards	**Products**	**Reduction GHG / carbon emissions**	**Maintain critical / sensitive ecosystems**	**Minimize impact of (agro) chemicals**	**Spatial planning to avoid biodiversity loss**	**Non-GMO**
Fairtrade	Cocoa	✔	✔	✔	✔	✔
RA	Cocoa, palm oil	✔	✔	✔	✔	✔
Organic	Cocoa, palm oil, soy	✔	✔	✔	✔	✔
RSPO	Palm oil	✔	✔	✔	✔	—
ISCC	Palm oil, soy	✔	✔	✔	—	—
RTRS	Soy	✔	✔	✔	✔	—
ProTerra	Soy	✔	✔	✔	✔	✔
FSC	Timber	✔	✔	N/A	✔	✔
PEFC	Timber	✔	✔	N/A	✔	✔

Note: RA=Rainforest Alliance; RSPO=Roundtable for Sustainable Palm Oil, ISCC=International Sustainability and Carbon Certification; RTRS=Roundtable for Responsible Soy; FSC=Forest Stewardship Council (FSC), and PEFC=Programme for Endorsement of Forest Certification.

Source: Modified from de Koening & Wiegant, 2017 and updated based on information available in the ITC Standards Map (ITC, n.d.) on Fairtrade Small Producers Organizations standards, Rainforest Alliance, Organic, RSPO, RTRS, ProTerra, Forest Stewardship Council, and Programme for Endorsement of Forest Certification, consulted on October 20, 2021. For updates on International Sustainability and Carbon Certification, the document consulted was *ISCC 202: Sustainability Requirements* (ISCC,2020).

Table 2. VSS design on deforestation prevention and reforestation: Alignment between deforestation prevention and reforestation practices and required (✔), recommended (o), or absent (—) production criteria of VSSs for cocoa, palm oil, soy, and timber

Sustainability standards	Products	Deforestation prevention and reforestation		
		Ban on converting areas with high biodiversity, conservation value, or carbon stock (Cut-off date)	**Restoring Natural Areas**	**Reforestation**
Fairtrade	Cocoa	✔ (-)	o	—
RA	Cocoa, palm oil	✔ (2014)	✔	✔
Organic	Cocoa, palm oil, soy	✔ (5 years prior to certification)	✔	—
RSPO	Palm oil	✔ (2005)	✔	✔
ISCC	Palm oil, soy	✔ (2008)	✔	✔
RTRS	Soy	✔ (2009 & 2008 for the Amazon)	✔	—
ProTerra	Soy	✔ (2008)	✔	—
FSC	Timber	✔ (National standard)	✔ (National standard)	✔ (National standard)
PEFC	Timber	✔ (National standard)	✔ (National standard)	✔ (National standard)

Source: Modified from de Koening & Wiegant, 2017 and updated based on information available in the ITC Standards Map (ITC, n.d.) on Fairtrade Small Producers Organizations standards, Rainforest Alliance, Organic, RSPO, RTRS, ProTerra, FSC and PEFC standards consulted on October 20, 2021. For updates on ISCC, the document consulted was *ISCC, 202: Sustainability Requirements* (ISCC, 2020).

Almost all VSSs require producers to restore natural areas, and only three specifically include criteria concerning reforestation. Both the FSC and PEFC standards require producers to have forest management plans aligned with the national context in which they operate, specifying sustainable timber harvesting practices with reforestation efforts that may need to follow.[3]

Most forest conservation VSS requirements aim to protect areas with high conservation value or high carbon stock value, such as primary forests, peatlands, and secondary forests with high density. The identification of areas to be conserved due to high carbon stock is based on the

[3] FSC International Standard: Principle 7, Management Planning (FSC, 2015); PEFC Sustainable Forest Management Requirements (PEFC ST 1003:2018) (PEFC, 2018).

amount of carbon found in a particular area, while identifying high conservation value areas includes not only environmental aspects but also community and cultural considerations (see Box 1).

Box 1. Definitions

Deforestation

"Deforestation is the direct human-induced conversion of forested land to non- forested land" (United Nations Framework Convention on Climate Change [UNFCCC], 2001). It has also been defined as "the conversion of forest to another land use or the long-term reduction of the tree canopy cover below the minimum 10% threshold" (FAO, 2001).

High Conservation Value Areas

"High Conservation Value Areas (HCVAs) are natural habitats that are of outstanding significance or critical importance due to their high biological, ecological, social, or cultural values. These areas need to be appropriately managed to maintain or enhance those identified values" (Biodiversity A to Z, n.d.).

High Conservation Value approach

The High Conservation Value (HCV) approach was developed as a tool for maintaining and enhancing environmental and social values within a production landscape. The aim of the HCV approach is to provide assessors with the tools they need to identify if there are HCVAs in the production site, and if so, where they are located. If there are HCVAs, the assessors recommend measures to manage and monitor them to ensure their maintenance while enhancing them. Management measures "may range from complete protection to extractive uses such as selective logging or harvesting of natural products. Any extractive use needs to be managed to an agreed standard and monitored for any negative effects on HCVs. HCVAs may not be converted to other land uses" (Biodiversity A to Z, n.d.; Proforest, 2014).

High Carbon Stock approach

"The High Carbon Stock (HCS) methodology distinguishes forest areas for protection from degraded lands with low carbon and biodiversity values that may be developed" (High Carbon Stock Approach, n.d.). In order to identify potential High Carbon Stock forests, analyses of satellite data and survey measurements are used, classifying the vegetation in an area of land into six different categories. The "methodology respects local community rights through its integration with enhanced Free Prior and Informed Consent procedures and respects community land use and livelihoods" (High Carbon Stock Approach, n.d.).

Implementation: VSSs support farmers and operators in the implementation of best practices to comply with their criteria.

At the implementation level, VSSs assist producers in different ways to comply with their production criteria. For instance, VSSs may establish clear approaches aimed at adopting more sustainable production practices, including preventing deforestation, such as the HCV approach, or providing funding for smaller producers to make the investments needed to produce more sustainably.

For example, the RSPO coordinates with the High Conservation Value Resource Network[4] to train assessors that work for certified operators to properly conduct HCV assessments in palm oil operations, leading to the recognition of HCV management areas identified for conservation. This, in turn, can prevent land clearing for planting oil palm in the designated areas (Wright & Tumbey, 2012).

As an example, during the period October 2014–October 2016, 88,055 hectares associated with RSPO-compliant palm oil operations were identified as HCVAs. The RSPO has also established a smallholder farmer support fund to cover training or audit costs and help smallholder farmers implement improved agricultural practices, comply with the standards, and become certified (RSPO, 2021).

To become more inclusive, some schemes have started tailoring their requirements, which can better accommodate varying producers' capacities. For instance, the "continuous improvement approach" adopted by the new Rainforest Alliance standard dictates the minimum number of core requirements that are needed to become a certified producer, with additional practices to be adopted over time in order to retain such certification.[5]

In the same vein, as a core requirement to comply with the standard for large farms and group certification, the new Rainforest Alliance standard requires that "management develops and implements a plan to conserve natural ecosystems" (Rainforest Alliance, 2020b, p. 78). This plan is based on a mapping and risk assessment exercise of the farm area that requires annual updates. In addition, as a mandatory improvement of farm practices, the scheme requires that "farms maintain all remnant forest trees, except when these pose hazards to people or infrastructure" (Rainforest Alliance, 2020b, p. 78). It further stipulates that "other native trees on the farm and their harvesting" have to be "sustainably managed in a way that the same quantity and quality of trees is maintained on the farm" (Rainforest Alliance, 2020b, page 78).

Most of the VSS schemes offer producers capacity-building and training support for the adoption of more sustainable practices. They can also provide producers with access to new markets and stronger relationships with value chain actors, who are often linked with corporate sustainable sourcing commitments (Elder, 2021).

[4] "The HCV Network is a member-based organisation that strives to protect High Conservation Values in areas where the expansion of forestry and agriculture may put important forests, biodiversity and local communities at risk" (HCV Resource Network, 2018).

[5] See the Continuous Improvement System in Rainforest Alliance, 2017, and in Rainforest Alliance, 2020b.

Assurance: VSSs implement several activities and procedures to verify whether farmers and operators comply with their criteria.

To support the proper enforcement of compliant practices at the farm, VSSs may use different approaches to provide assurance that their participating farms are implementing their standard, known as assurance systems. Approaches can include (i) certification audits conducted by an independent body that confirm a producer's performance against a set of criteria by issuing a certificate; (ii) verification audits, conducted by the VSS verification services or independent parties to check whether a producer has systems in place to monitor and control their sustainability performance; and (iii) self-reporting activities, through which a producer assesses and reports their own performance against the set of standards criteria. These approaches vary in the level of assurance they provide, their associated costs, and the frequency of audits they entail.

Despite the existence of assurance systems, VSSs cannot always guarantee that farming operations always comply with their standard criteria. An example of this is the evidence of land clearance activities in forest areas that should be protected according to the standard's requirements (Uribe-Leitz & Ruf, 2019). To address these shortcomings, VSSs such as Rainforest Alliance and FSC are reinforcing their audit rules while enhancing their traceability and performance monitoring systems using technology.

For instance, Rainforest Alliance has recently started requiring every certified cocoa farmer in West Africa to provide their specific GPS coordinates to be able to closely monitor (via satellite technology) and detect whether the farmer is cultivating cocoa in protected forest areas (Rainforest Alliance, 2020a). The FSC recently launched the new FIS GIS and Earth Observation Portal, which will enable auditors to access geospatial information of FSC-compliant forest areas in real time, including tree cover loss, intact forest landscapes, protected forested areas, and the limits of the certified forest areas provided voluntarily by FSC-compliant operators (FSC, n.d.b). This measure will support conducting more accurate audits and improve transparency in information concerning forest management while monitoring forest areas more closely with a higher risk of deforestation.

Furthermore, VSS schemes can support producers complying with the standard through the "chain-of-custody" approaches in which they operate to ensure the traceability of products along the value chain. This is especially important for reducing deforestation to track the product back to its production region. VSSs commonly use four chain-of-custody approaches with varying levels of traceability and costs:

- **Identity-preserved:** This approach consists of a complete system for production, handling, processing, and labelling of a product structured in a way to maintain its integrity and purity along the value chain. Under this approach, a product that complies with a VSS is identified and separated from other compliant and non-compliant products from farm to end-use consumption. This approach provides a greater level of traceability through the identification, tracking, and tracing of the product along the value chain back to its origin, though it is more costly.

- **Segregated:** This approach implies that VSS-compliant products are mixed and grouped together when they are processed and sold, but they must be separated from non-compliant products at each stage of the value chain.
- **Mass balance:** This approach allows for mixing VSS-compliant and conventional products together as they are transformed and processed while accounting for their volume ratio as they move up the value chain until the final product is consumed.
- **Book and claim:** This approach does not seek to have physical traceability of the product at each stage of the value chain, as VSS-compliant products are mixed with non-compliant and sold as non-sustainable. However, it uses a system of sustainability credits where a company can purchase sustainability certificates for the volume of certified products a farmer has produced from an online market. Under this scheme, companies can claim to be supporting the production of VSS-compliant products without having to source and track standard-compliant materials within their own supply chains (United Nations Global Compact & BSR, 2014).

The implementation of these chain-of-custody approaches across the value chain contributes information about the origin of the product—for instance, whether it is associated with deforestation practices or not, which gives traders, processors, and end-customers some level of guarantee that the product they purchase is not associated with deforestation.

Recently, VSSs chain-of-custody approaches became an important aspect of the European Free Trade Association (EFTA)–Indonesia Comprehensive Economic Partnership Agreement (CEPA). In this context, Switzerland asserted that identity-preserved and segregated RSPO-certified palm oil would amount to sufficient traceability to examine if their imports are associated with deforestation (see Section 4).

However, these approaches do not come without challenges to ensure that non-compliant products associated with deforestation practices are identified and traded as VSS-compliant across the value chain (fraud risk). Some VSSs address this concern through technology and digital solutions to support the identification of the origin of the product.

For instance, FSC uses wood identification technologies to determine species and origin of harvest locations, and they can identify the forest where the wood product originated if there are other wood samples that the scheme has collected for comparison purposes (Worm, 2020). FSC is also currently piloting FSC Blockchain Beta to conduct integrity and verification of FSC-compliant products as they are processed and sold along the value chain (FSC, n.d.-a).

In sum, VSSs dealing with different commodities (i.e., cocoa, palm oil, soybean, and timber) offer varying opportunities for preventing deforestation and enabling reforestation. Nevertheless, as observed, VSSs can vary significantly in terms of their design, implementation, and assurance approaches. A deeper level of analysis is thus required to better understand how they measure up in terms of preventing deforestation. A recent report that examines the effectiveness of different approaches in preventing deforestation concludes that VSSs have "the most demonstrated positive impact in preventing deforestation" (Ingram et al., 2020, page 45), especially at the farm and plantation levels. Overall, however, research suggests that VSSs have had mixed results in preventing deforestation. There are reported cases where VSSs have had positive, negative, and neutral results in reducing and preventing deforestation across

commodities, including cocoa, palm oil, soybean, and timber; the results are context-specific and highly dependent on location (Carlson et al., 2018; Ingram et al., 2020). Moreover, multi-pronged approaches used in combination (i.e., regulation and VSSs, landscape approaches and VSSs) (Ingram et al., 2020) are needed to address complex sustainability challenges such as global deforestation. VSSs are only one tool among many offering consumers and governments a potential opportunity to prevent deforestation.

3.0 Approaches Included in International Trade Agreements to Reduce or Eliminate Deforestation and Conserve Forests

Turning to the trade policy domain, the inclusion of forest conservation-related provisions is one component of a broader set of policy options chosen by parties to a trade agreement to address environmental objectives. Currently, nearly 300 different types of environmental provisions have been identified in 730 trade agreements (OECD 2007). This includes specific provisions related to forest conservation. Such provisions can be analyzed from two main perspectives: the substantive law or "design" perspective and the enforcement-oriented perspective (Nowrot, 2016).

The Substantive Law Perspective of Forest-Related Provisions in FTAs

From the substantive law perspective, in terms of their scope and depth, environment-related provisions stipulating the rules of behaviour of the treaty parties can be divided into three categories.

(A) Declarative clauses

The most common type of declarative clauses included in trade agreements that entered into force before 2007 is a mere reference to the implementation of the exceptions of General Agreement on Tariffs and Trade Article XX or General Agreement on Trade in Services Article XIV (and their wording, "necessary for the protection of human, animal and plant life and health") (OECD 2007). This has remained the most common type of environmental provision throughout the subsequent years. The second most common type of declarative clause has been a reference to the environment or sustainable development in the preamble of the agreement (OECD, 2014).[6]

(B) Cooperation provisions

A series of FTAs concluded by Latin American countries, particularly in the 2000s, contain environmental "cooperation" provisions, including the identification of "priority areas," for which "work programs" were to be established. Dedicated "Agreement[s] on the Environment," which are part of the respective FTAs, identify "forest management" as a priority area for which a work program must be put in place.[7]

[6] See, for example, EFTA-Serbia, EFTA-Albania; China-Pakistan, Australia-New-Zealand-ASEAN.

[7] See, for example, Canada-Colombia and the Chile-Malaysia FTAs.

Many FTAs include variations of the "cooperation" model initially and widely seen in Latin American, Japanese, and Korean FTAs. Indicatively, the China–Peru FTA sets forth a detailed cooperation provision on "forestry matters and environmental protection," which sets out cooperation "aims" and areas on which the parties "may focus." Some of the cooperation "aims" include developing training programs for the sustainable management of forests, improving the rehabilitation and sustainable management of forests more generally, cooperating in the execution of relevant national projects and jointly developing new technologies, and conducting studies on the sustainable use and processing of timber. Similar provisions are found in the 2010 Revised Cotonou Agreement.

(C) Commitments

The third type of provision includes specific commitments in the forest-related articles. The scope and the level of commitment contained in such provisions may vary widely. The European Union (EU) has included this type of provision since its "old generation" agreements. The EU's approach naturally varies depending on the trading partner and, in many cases, has evolved into the inclusion of a full and separate chapter on "Trade and Sustainable Development" (TSD), which contains legally binding commitments by the parties with respect to a range of multilateral envirinonmental agreements and conventions of the International Labour Organization.

Agreements concluded by the EU include some of the following provisions:

- An encouragement to trade of "forest products from sustainably managed forests and harvested in accordance with the law of the country of harvest" (EU–Canada Comprehensive Economic and Trade Agreement [CETA] and Mercosur[8]). This may include the adoption of the Forest Law Enforcement Governance and Trade (FLEGT) Voluntary Partnership Agreement, which will be explained in Section 4.
- The effective implementation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)[9] (EU–Central America[10] Association Agreement; EU–Colombia, Peru, and Ecuador Trade Agreement; and EU–Georgia Association Agreement).
- The "development of systems and mechanisms that allow verification of the legal origin of timber products throughout the marketing chain" (EU–Colombia, Peru, and Ecuador Trade Agreement).
- The use of "certification schemes for sustainably harvested forest products" (EU–Central America Association Agreement).

[8] MERCOSUR Members are Argentina, Brazil, Paraguay, and Uruguay.

[9] "CITES is an "international agreement an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten the survival of the species" (CITES, n.d.).

[10] Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama.

- A commitment to cooperate on "the conservation of forest cover as well as on sustainable forest management according to the 2030 Agenda for Sustainable Development" (EU–Mercosur Association Agreement).[11]

EFTA countries[12] have also included the promotion and effective use of CITES and "the development and use of certification schemes for forest products from sustainably managed forests" in their CEPAs with Ecuador and with Indonesia. The latter will be further explained in Section 4.

By contrast, while all the agreements signed by the United States in the 2000s contain environmental provisions, sustainable forest management does not feature as a main policy priority in U.S. FTAs, with the exception of the US–Peru Trade Promotion Agreement (PTPA) (signed in 2007). This agreement contains a detailed annex focusing on strengthening forest sector governance in Peru, implemented through audits of Peruvian producers and exporters as well as "verification mechanisms relating to the harvest of and trade in timber products. [Peru committed] to fully implement[ing] existing laws and regulations for forest sector governance and strengthen[ing] the institutions responsible for enforcing these laws and any aspect of forest management" in its territory (Peru–United States Trade Promotion Agreement, 2007).

More recently, provisions on forest conservation were included in the agreement concluded between the United States, Mexico, and Canada (USMCA). Unlike the US–PTPA, the obligations contained in the USMCA apply to all parties to the agreement.

Enforcement of Forest-Related Provisions in FTAs

FTAs contain different types of forest-related environmental dispute settlement provisions ("enforcement" perspective) (Nowrot, 2016). This includes a minimalist procedural approach; a "soft," quasi-judicial dispute settlement; and a "hard," quasi-judicial dispute settlement.

(A) Minimalist procedural approach

Some agreements with more comprehensive provisions on environmental governance or separate chapters on TSD provide for dedicated dispute settlement exclusively through consultations between the parties (negotiation model).[13] Accordingly, disputes arising under these provisions or chapters are not subject to the traditional dispute settlement mechanism included in the trade agreement.

[11] Trade and Sustainable Development chapter, EU–Mercosur Association Agreement.

[12] Iceland, Lichtenstein, Norway, and Switzerland.

[13] Canada–Peru FTA and its accompanying Agreement on the Environment (2009), Framework Agreement Establishing a Free Trade Area concluded between the Republic of Korea and Turkey (2013).

(B) "Soft," quasi-judicial dispute settlement

This approach, followed mainly by the EU in the new-generation FTAs,[14] entails three principal phases of dispute settlement:[15]

1. The first phase entails government consultations adopting a negotiation model requiring the parties to "make every attempt to arrive at a mutually satisfactory resolution of the matter." The consultations can be carried on between the parties on an informal basis or, if a party considers that the matter requires further discussion, within the Trade and Sustainable Development Committee. At this stage, the parties may seek advice from relevant multilateral environmental organizations or bodies, as well as from their domestic advisory groups or any other person they deem appropriate.
2. In the second phase, following an "adjudication model," if the matter is not satisfactorily addressed by consultations, the establishment of a Panel of Experts may be requested to examine the matter and to issue a report to the parties.
3. In the third phase (implementation), once the report is presented to the parties, a negotiation model is again adopted, asking them to discuss appropriate actions or measures to be undertaken taking into account the report and the proposed recommendations.

(C) "Hard," quasi-judicial dispute settlement

This approach provides for the use of the general dispute settlement mechanism under the FTA, providing for the application of trade sanctions in case of non-compliance with environmental provisions contained in such FTAs. According to some scholars, this approach eliminates the procedural differences between the dispute settlement mechanisms used for disputes related to trade commitments and those addressing the more recently introduced environmental provisions in FTAs (Nowrot, 2016). This approach is followed by the United States in many of its FTAs.[16]

4.0 The Role of International Trade Agreements and VSSs in Tackling Large-Scale Deforestation and Enhancing Forest Conservation

As highlighted in the previous section, the inclusion of forest-specific environmental provisions is part of a set of policy options chosen by parties to a trade agreement to address environmental objectives. Over the years, such options have ranged from the inclusion of broad preambular language on environment (or no reference at all) to the inclusion of a reference to or the incorporation of VSSs.

[14] Examples include EU–Singapore FTA, EU–Vietnam; EU–MERCOSUR.

[15] These phases are adapted from Nowrot, 2016.

[16] US–Korea FTA, US–Peru; US–Panama; US–Colombia.

According to the UNFSS (2020), at least 19 FTAs mention VSSs or related terms, such as "eco-labelling," "sustainability standards," or "certifications." The majority of these FTAs involve developed countries (Canada, the EU, and the US), and two FTAs have been concluded by emerging economies (Republic of Korea–Turkey, and Republic of Korea–Colombia) (Bermúdez, 2021). Despite the upward trend in referencing VSSs in trade agreements, such provisions limit themselves to promoting the use of such standards without including legally binding requirements on the parties to undertake specific actions. In other words, the use of VSSs had remained largely "promotional" rather than "conditional" in terms of market access concessions.

Nevertheless, in this regard, the EFTA-Indonesia CEPA offers an innovative approach since it grants preferential tariff treatment to products that meet sustainability requirements, as will be explained in the next subsection. Other initiatives aimed at tackling deforestation pertain to due diligence requirements, which will be addressed in this section.

EFTA–Indonesia CEPA

The EFTA-Indonesia CEPA is the first trade agreement that encompasses a regulatory distinction between conventional and sustainable production. By virtue of Article 8.10,[17] EFTA countries will grant preferential treatment to products[18] that meet sustainability requirements. Chapter 8 requires "all vegetable oils and their derivatives traded between the parties" to be traded in accordance with the "laws, policies and practices aiming at protecting primary forests, peatlands, and related ecosystems, halting deforestation, peat drainage and fire clearing in land preparation, reducing air and water pollution, and respecting rights of local and indigenous communities and workers" (Articles 8.10(2):a and 8.10(2):e).

While this provision, and the entire Chapter 8, are not subject to the CEPA dispute settlement provisions, the importing parties (i.e., the EFTA countries) will establish domestic control systems in order to grant CEPA preferential treatment only to palm oil and derivatives produced in compliance with Article 8.10 (Sieber-Gasser, 2021a).

In Switzerland, where a referendum on the CEPA was held in the first quarter of 2021, "this means that importers of Indonesian palm oil and palm oil derivatives have to prove RSPO-certification, International Sustainability and Carbon Certification (ISCC Plus, and Palm Oil Innovation Group [POIG]) in order to benefit from the CEPA preferential tariff treatment. The domestic processes of import control and governance in Switzerland are established in a separate ordinance" (Sieber-Gasser, 2021b).

In sum, through the CEPA provision, three private sustainability standards (RSPO, ISCC, and POIG) will be used as a binding requirement for preferential treatment. Such a provision, which, as indicated before, is not subject to CEPA's dispute settlement mechanism and will be enforceable through domestic legislation.

[17] Article 8.10 "Sustainable Management of the Vegetable Oils Sector and Associated Trade"

[18] The products are Stearin (1511.9018), Palm oil (other tariff lines in chapter 1511), and Palm kernel oil (1513.21 / 1513.29).

It has been argued that this new regulatory mechanism has the potential to create "a template for binding, enforceable sustainability preferences in trade agreements – a regulatory precedent with the potential to become a new sustainability standard for TSD chapters in trade agreements" (Sieber-Gasser, 2021b). Most notably, it is argued that this new approach may be able to overcome most of the identified shortfalls in existing TSD chapters in EU trade agreements since it is binding and enforceable, thereby creating a tangible economic incentive to switch from conventional to sustainable production (Sieber-Gasser, 2021b).

While preferential treatment for sustainable production is limited to palm oil, it has also been suggested that its regulatory mechanism (through a domestic import control) could be transposed and applied to other products and commodities (e.g., organic beef, fair trade bananas, climate-neutral clothes, etc.) in future trade agreements if an international standard or label is available and both parties agree (Sieber-Gasser, 2021b).

While the CEPA provisions may constitute a novel approach that might become a new trend in future trade and sustainability policy, this (untested) approach does not come without challenges. Some of them pertain to its dependency on private standards or labels, its reliance on private certification processes, and the uncertainty with regards to the long-term impact of a given standard or label (Sieber-Gasser, 2021b).

Moreover, it has also been noted that in order to increase the sustainability impacts of this and other agreements, "effective market concessions" should be made on a broader "range of agricultural products—including high-value processed goods—stemming from diversified farming systems." It is also advised that provisions in FTAs regarding non-tariff barriers or the protection of intellectual property in seed production "would need to be shaped in view of the envisaged sustainability goals" (Bonanomi & Tribaldos, 2021).

In sum, this new approach raises important policy considerations around its implementation, which include the question of the extraterritoriality of measures and their consistency with the World Trade Organization (WTO) commitments since it differentiates on the basis of process and production methods (PPMs). This issue will be analyzed in Section 5.

"Due Diligence" Requirements: The FLEGT approach

FLEGT is an EU regulation that entered into force in 2003 and aims to combat illegal logging and deforestation. The regulation applies to imported and domestically produced timber and timber products and imposes a "due diligence" requirement upon EU traders. In the context of this regulation, due diligence refers to "a system of measures and procedures to minimize the risk of placing illegally harvested timber and timber products derived from such timber on the internal market" (European Parliament, n.d.). The system is composed of three main elements: (1) access to information about the origin of wood, (2) risk assessment evaluations, and (3) mitigation strategies of the risk identified (European Parliament, n.d.)

The Voluntary Partnership Agreement (VPA) is a major element of FLEGT implementation and consists of a legally binding trade agreement between the EU and a timber-exporting country outside the EU. The VPA establishes a legality assurance system that guarantees that all timber imports from a country into the EU are from legal sources. Legality in this context

is defined according to national standards and the contents of the VPA. Once the system is in place, a country is allowed to issue FLEGT licences, which grant access to the EU market.

To date, seven countries have ratified a VPA with the EU: Ghana, the Republic of the Congo, Cameroon, Indonesia, the Central African Republic, Liberia, and Vietnam. Indonesia is the only country able to issue FLEGT licences. VPAs concluded to date contain commitments aiming at improving forest governance such as transparency, accountability, and legislative clarity.

The VPAs set out a commitment for countries to establish a dedicated system to assure the legality of their timber, known as legality assurance system (LAS), which includes the following elements:

- **Legality definition:** establishes the criteria of a VPA partner country's law against which the LAS evaluates compliance.
- **Verifiers of legal compliance:** documents laid down in the legality definition that will constitute proof of legal compliance.
- **Supply chain controls:** verification process set up to ensure that the legality of timber remains such through the whole supply chain.
- **Verification of compliance:** verification process that evaluates the compliance with all the legality requirements and supply chain controls to secure that timber products are legal.
- **FLEGT licensing:** once the system is in place, FLEGT licences are issued for each timber shipment entering the EU market. Both the shipment and their exporters must comply with all the requirements of the legality definition, the supply chain controls, and the verification procedures.
- **Internal inspections and a feedback mechanism:** domestic inspections can be undertaken by government agencies to detect challenges in laws, regulations, and management mechanisms as well as to recommend solutions. Moreover, mechanisms for stakeholders' complaints and feedback regarding the assurance system and FLEGT licensing may also be included.
- **Independent evaluation:** a periodical assessment of the assurance system is conducted by an independent evaluator aiming at identifying and reporting any non-compliances or weaknesses.[19]

The EU Timber Regulation constitutes one key component of the FLEGT Action Plan and contains elements that may be of interest in terms of the enforcement of a mandatory cross-sectoral system of due diligence based on sanctions. The regulation imposes a due diligence obligation on operators in order to prevent illegally harvested timber or timber products entering the EU market. Remarkably, an operator can be found to be in breach of this obligation even if the traded timber is legal. The application of "effective, proportionate and dissuasive" penalties such as fines, the seizure of the timber or the products or the

[19] This list is adapted from EUFLEGT, 2020, describing the EU–Vietnam VPA. It should be noted that VPAs share most of these elements.

suspension of the authorization to trade, is entrusted to the EU Member States (European Parliament, n.d.).

Other Initiatives

In an effort to address deforestation through international trade policy, the United Kingdom entrusted an independent task force, the Global Resource Initiative (GRI), to provide specific recommendations. The final report was released in March 2020 and, among other aspects, recommended the introduction of a mandatory due diligence requirement on companies sourcing forest risk commodities and derived products in their supply chains (GRI, 2020). According to the report, "the mandatory due diligence obligation should require companies to analyze the presence of environmental and human rights risks and impacts within their supply chains, take action to prevent or mitigate those risks, and publicly report on actions taken and planned" (GRI, 2020). The report also recommends establishing a mandatory due diligence obligation on the financial sector so as to prevent their lending and investments supporting deforestation.

On November 11, 2020, following a consultation with stakeholders, the Government of the United Kingdom confirmed that a new law, which includes due diligence on forest-risk commodities, would be introduced through the Environment Bill 2019-2021. The Bill would mainly prohibit large companies from using agricultural commodities produced in breach of countries of origin laws. Additionally, it will impose a due diligence requirement on these companies and an obligation to publish information about their diligence results conducted to detect any risks of illegal deforestation in their supply chains. Fines would be imposed in case of non-compliance with these rules (Department for Environment, Food & Rural Affairs, 2020).

In this context, a group of companies signed a letter asking the government to further strengthen the Environment Bill by (i) aligning the definition of deforestation with what is necessary to achieve net-zero;[20] (ii) adopting thresholds that reflect the scale influence of the company regarding the volumes of raw materials imported; (iii) facilitating an enabling environment for companies to act to achieve a deforestation-free supply chain by directly obligating materials suppliers or traders in or importing into the United Kingdom to disclose the required supply chain information; (iv) implementing sector-specific requirements (a roadmap) to reduce deforestation, considering that each commodity sector is at a different stage with regard to product traceability, producing country conditions, and certification potential; (v) protecting vulnerable small landholders; (vi) incentivizing good behaviour—not just avoiding problem areas; (vii) allowing for restoration and remediation; and (viii) continuing consultations and collaboration with the private sector (Aldi Stores et al., 2020). The letter encourages the adoption of chain-of-custody certification systems, such as ProTerra, RTRS, and RSPO, in order to ensure compliance with their own zero-deforestation ambitions. When certification is not available or effective, the signatories propose that companies should

[20] To achieve "net-zero" refers to reaching net-zero carbon emissions by a specific date. In other words, it means "balancing the amount of emitted greenhouse gases with the equivalent emissions that are either offset or sequestered." The UK set a 2050 net-zero target (Edie, n.d.).

step up and set a system to manage a traceable and monitored chain of custody (Aldi Stores et al., 2020).

The Bill continues its legislative process in the United Kingdom's Parliament, and it remains to be seen which of these proposals will be taken into account and how they will be implemented.[21]

5.0 Concluding Remarks: Some considerations for mandatory sustainability standards

As explained in Section 2, VSSs that apply to specific commodities in the cocoa, palm oil, soybean, and timber sectors offer a range of opportunities for preventing deforestation and enabling reforestation. Nevertheless, as observed, these standards can vary significantly in terms of their design, implementation, and assurance approaches. Moreover, their sustainability impacts are location- and context-specific. Therefore, a deeper level of analysis is required to understand how VSSs measure up in terms of preventing deforestation. In addition, research suggest that multi-pronged approaches should be used in combination (i.e., regulation and VSSs, landscape approaches and VSSs) to address complex sustainability challenges such as global deforestation since VSSs are only one tool among many offering consumers, buyers, and governments an opportunity to prevent deforestation (Ingram et al., 2020).

In the trade policy domain, as noted in Section 3, the inclusion of forest conservation-related provisions is one component of a broader set of policy options chosen by parties to a trade agreement to address environmental objectives. Over the years, such options have ranged from the inclusion of broad preambular language on the environment (or no reference at all) to the inclusion of a reference to or the incorporation of VSSs.

An analysis of current trade agreements reveals that VSSs are largely included in a promotional way, which means that they promote the use of VSSs for environmental purposes. Yet, some novel approaches are emerging, and they are moving in the direction of mandatory sustainability requirements and/or regulatory distinctions of products compliant with sustainability standards when they arrive at a border. For example, the approaches illustrated by EFTA-Indonesia and palm oil certification and the due diligence obligation implemented by the EU (discussed in Section 4) impose mandatory requirements aimed, to some extent, at sustainability and forest protection. These novel approaches raise important policy questions, such as a tariff differentiation based on PPMs.

Practitioners and academics have been discussing the possibility of differentiated tariffs for certified versus non-certified products (Mavroidis & Neven, 2019), and the new EFTA-Indonesia is an illustration of this approach. However, as mentioned above, the differentiated tariff treatment based on PPMs gives rise to questions regarding its compatibility with WTO rules and remains debated and open to interpretation. For instance, Buergi Bonanomi and Tribaldos (2020) are of the view that "the argument is less that PPMs are not compliant with

[21] For more information on the Bill, please see https://commonslibrary.parliament.uk/research-briefings/cbp-9119/. For information on the legislative process, see https://bills.parliament.uk/bills/2593.

trade law, but rather that much depends on their design." They also argue that the relevant question would be "how the standard setting can be made transparent, inclusive, non-discriminatory, and consistent vis-à-vis domestic actors, without imposing unfair costs on the most vulnerable—namely small producers, developing countries, and poor consumers" (Buergi Bonanomi & Tribaldos, 2020). Moreover, they are of the view that "PPM-based tariff preferences have the best chance of withstanding WTO scrutiny" if certain aspects are adhered to (Buergi Bonanomi & Tribaldos, 2020). For instance, they suggest that sustainability criteria must be flexibly tailored to the context and production conditions and should equally apply to domestic actors. Furthermore, the measure "must be designed in a proportional way, that is, no more interventional than necessary to reach the targeted objective" (Buergi Bonanomi & Tribaldos, 2020). In addition to the above, they suggest that to enhance market access for sustainably produced goods, PPM-based tariff preferences may require "accompanying policy measures" (Buergi Bonanomi & Tribaldos, 2020). Such measures include "the recognition of local standards and procedures of foreign contexts as being equivalent to domestic ones, as well as the warranting of adequate financial and technical support" (Buergi Bonanomi & Tribaldos, 2020).

Because the approach to PPM-based tariff preferences described above is new and has not been tested under the WTO Dispute Settlement, the question of its potential consistency with WTO rules remains open.

In addition to the above, from a WTO perspective, whether VSSs should be considered private schemes has long been a source of debate. Some critics argue that VSSs can have the effect of non-tariff barriers to trade, focusing on environmental and social standards that do not affect the physical properties of products. Moreover, even if they are voluntary, it has been argued that if a significant number of VSSs are adopted, and they "become a de facto requirement for market access, they should be subject to multilateral regulation" in the same way mandatory product standards are (UNFSS, 2018).

Connecting to Other Initiatives

In the WTO context, the policy questions above could be explored further in an informal setting without prejudging members' positions, for instance, as part of the Trade and Environmental Sustainability Structured Discussions (TESSD). Building on the intervention made by the British delegation at the TESSD to provide an overview of the Forest, Agriculture and Commodity Trade (FACT) Dialogue between consumer and producer countries (as part of the United Kingdom Presidency of COP 26),[22] an informal exchange of views could be held with WTO members and other stakeholders. This could involve the elements contained in the "Joint statement on principles for collaboration under the Forest, Agriculture and Commodity Trade (FACT) Dialogue," notably, the "exchange of information, approaches, and experiences, to identify specific actions" around areas such as trade and market development, smallholder support, transparency, and traceability (Cabinet Office, Government of the United Kingdom, 2021). This event could provide participants with an

[22] The Conference of the Parties (COP) is the supreme decision-making body of the United Nations Framework Convention on Climate Change responsible for monitoring and reviewing its implementation.

opportunity to further analyze and understand the function, specific characteristics, challenges, and opportunities of value chains and result in more elements to assess the next steps, including potential items that could be discussed in the WTO.

Integrating VSSs Into Trade Agreements

An overview of the role of VSSs and their inclusion in international trade agreements reveals that there is considerable scope for development and integration, which calls for the strengthening of standards as a vehicle to achieve environmental goals, such as preventing deforestation. This call includes ensuring that VSSs require stringent measures to reduce and prevent deforestation (while enhancing forest conservation), provide supporting services to farmers to implement compliant practices, and reinforce the effectiveness of their assurance systems to guarantee that farming practices comply with these criteria. From a WTO perspective, a fundamental and open question would be how the standard-setting process—in particular, the standard's design—could be "transparent, inclusive and non-discriminatory" (Buergi Bonanomi & Tribaldos, 2020).

Going forward, enhanced dialogue and cooperation are needed to further develop concrete policy options to build synergies between VSSs and trade agreements. This includes dialogues between governments, international organizations, the private sector, academia, and non-governmental organizations, as well as continuous monitoring and analysis of policy developments in this area.

Trading partners may also consider ways to integrate the existing knowledge and processes derived from VSSs into FTAs. Some potential avenues include:

- Exploring whether and how governments could play a greater role in supporting VSSs to put effective assurance systems and complaint mechanisms in place.
- Conducting sectoral dialogues (as opposed to an "across the board" approach to supply chains) to better understand and address the sustainability issues of specific sectors (i.e. cocoa, palm oil, timber, soybean). Such dialogues could potentially draw from the experience of VSSs in addressing sustainability issues in each sector.
- Assessing whether and how some "minimum" requirements contained in certification schemes could be included in FTAs.
- Analyzing existing compliance mechanisms contained in VSSs as well as in other contexts, such as the World Bank Inspection Panel or the OECD National Contact Points (by virtue of the Guidelines for Multinational Enterprises). This analysis could distill some best practices and lessons learned that could be integrated into the negotiation of FTAs.
- Providing technical and financial support to farmers in developing countries to increase their capacity to improve the sustainability of their production methods so they can comply with sustainability-related criteria.

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