

The Multilateralization of PTA Environmental Clauses – Scenarios for the Future?

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Preferential trade agreements (PTAs) cover a much wider diversity of environmental clauses than World Trade Organization (WTO) agreements. Which PTA environmental clauses could be multilateralized and included in the WTO rulebook? This chapter compares five different scenarios for the potential multilateralization of PTA environmental clauses: 1) The “routine scenario” combines the most frequent clauses; 2) The “consensual scenario” includes the clauses accepted by a high number of WTO members; 3) the “trendy scenario” includes the most popular clauses in recent times; 4) “the power-game scenario” combines the clauses that are jointly supported by the US and the EU; 5) the “appropriate scenario” is a compilation of the clauses typically included in large membership agreements. This chapter compares and contrasts the scenarios’ implications and identifies their common ground. Although each scenario represents an ideal type unlikely to materialize, the comparison offers insights into how the multilateral trade system could be developed to improve the integration of environmental concerns.

A. Introduction

As part of the trend to establish deeper trade agreements (Dür, Baccini and Elsig 2014), recent preferential trade agreements (PTAs) now incorporate an increasing number of environmental provisions. Several recent PTAs devote an entire chapter to environmental protection and address a broad range of environmental issues, such as endangered species, climate change, hazardous waste and fisheries. Some of these clauses are even more specific and restrictive than those found in multilateral environmental agreements (MEAs) (Morin and Jinnah 2018). The WTO approach to environmental protection looks outdated (OECD 2007) in comparison with PTAs and their ambitious environmental clauses.

Several analysts consider PTAs as laboratories where negotiators can experiment and promoted new provision before eventually cemented them at the multilateral level if they become consensual (Baldwin and Low 2009). The concept of multilateralization refers to the adoption of an agreement that incorporates provisions already found in some PTAs.¹ The multilateralization of environmental provisions can take the form of a fully-fledged multilateral agreement that includes all WTO members or a plurilateral agreement among several WTO members. The multilateralization of PTA environmental clauses would enable the WTO to catch up with legal developments that have been tested at the PTA level.

At the moment, the multilateralization of PTA environmental clauses appears unlikely, at least in the foreseeable future given the current political and institutional stalemate at the

¹ Unlike other studies (Pauwelyn 2009; Morin 2009; Baldwin, Evenett and Low 2009), this chapter does not consider the following to be examples of multilateralization: the geographical expansion of existing PTAs, the creation of mega-regional PTAs, the duplication of certain provisions in a large number of PTAs, the establishment of customary international rules by repeated PTA practice, the citation of PTA clauses in multilateral tribunals and the prohibition of discrimination toward third parties via PTAs.

WTO. Clarifying the interplay between trade and the environment was part of the original negotiation mandate of the 2001 WTO's Doha Development Agenda.² However, this WTO program has stalled.³ A recent WTO study states that the inclusion of PTA environmental provisions in WTO agreements would “go beyond the current WTO mandate” (Monteiro 2016).

Nevertheless, further reflection on the multilateralization of PTA environmental clauses is necessary. We believe that multilateralization would make a positive contribution to environmental governance in various ways. First, justifications for including environmental clauses in PTAs remain valid at the multilateral level, for example, avoiding unnecessary trade restrictions on environmental regulations, leveling the playing field with countries that have lax regulations, promoting greater trade in environmental goods and services, and using strategic linkages to advance international environmental law (George 2014; Morin, Dür and Lechner 2017). Perhaps more importantly, a multilateral forum, such as the WTO, would be more appropriate than PTAs when it comes to protecting the global commons and taking developing countries' concerns better into account. The WTO also provides a more suitable framework than PTAs for addressing the fragmentation of international laws and promoting synergies between trade law and MEAs. Last but not the least, multilateralized environmental rules and disciplines would be subject to the WTO's stringent dispute settlement procedure which could enhance enforcement.

Against this background, several studies explore the potential multilateralization of PTA environmental clauses (OECD 2007; Chaytor 2009; Anuradha 2011; Gehring *et al.* 2013; Draper *et al.* 2017). Many studies suggest that multilateralization at the WTO would generate opposition in developing countries. Indeed, the latter might consider environmental clauses as a disguised means of ‘green protectionism’ (Draper *et al.* 2017: ii). However, not all developing countries are opposed to linkages between trade and the environment. Some developing countries are even frontrunners in the drive to include certain types of environmental provisions in their PTAs. For example, Peru and Columbia are pioneers in the move to introduce provisions related to genetic resources in PTAs (Morin and Gauquelin 2016). Therefore, the relevant question is not so much whether developing countries as a group would support the inclusion of environmental clauses in a future WTO agreement, but rather what specific types of environmental provisions are likely to be supported by a substantial number of key countries?

To tackle this research question and identify the environmental clauses that are most likely to be multilateralized, this chapter compares the results of different multilateralization scenarios. In a discussion about the usefulness of scenarios in scientific research, Van Notten *et al.* distinguish “between descriptive scenarios that explore possible futures, and normative scenarios that describe probable or preferable futures.” (2003: 429) The scenarios presented in this chapter belong to the first category. This chapter does not aim to establish which scenario is most likely to occur or to determine the most desirable scenario for the multilateralization of environmental clauses. More modestly, this chapter describes possible multilateral agreements, which incorporate some of the environmental clauses currently found in PTAs. The objective of this descriptive exercise is exploratory (Notten *et al.* 2003: 426). By considering different possible futures, scenarios can be used as a reflective tool to stimulate discussions on current practices and the likely content of future multilateral agreements.

² See online: https://www.wto.org/english/tratop_e/envir_e/envir_negotiations_e.htm (accessed: 21.12.2017)

³ The WTO made limited progress on the second aspect of the environment-related Doha negotiation mandate, namely the compatibility of WTO agreements and MEAs. There has been some progress regarding the Environmental Goods Agreement (EGA), a plurilateral agreement of 46 WTO members under the auspices of the WTO, but negotiations are stalled at the moment.

The scenarios identify possible multilateral agreements by drawing from the TRade and ENvironment Database (TREND) (Morin, Dür and Lechner 2017).⁴ The most recent version of the TREND database covers 286 different environmental clauses found in 689 trade agreements, signed between 1947 and 2016.⁵ These environmental provisions include commitments relating to the domestic level of environmental protection, exceptions to trade commitments for environmental purposes, obligations regarding transparency and public participation in environmental policymaking, commitments to provide assistance to developing countries on environmental matters, specific prescriptions on particular environmental issues and references to MEAs.

In the section following this introduction, we argue that some PTAs environmental clauses are sufficiently frequent and convergent to make their multilateralization plausible. The third section describes five possible multilateral agreements, each based on a different multilateralization scenario. The fourth section compares the fictional agreements and identifies a possible Common Ground Agreement. The conclusion discusses the challenges of multilateralizing PTAs.

B. The Convergence of (some) PTA Environmental Clauses

The proliferation of comprehensive PTAs has renewed the debate on the articulation between regionalism and multilateralism (Baldwin 2014: 5). In the 1990s, this debate primarily looked at the effect of tariff discrimination on trade flows. PTAs were presented either as building blocks for multilateralism, if they created additional trade, or as stumbling stones, if they diverted trade from one country to another. However, new questions arise because, compared with former PTAs, recent PTAs provide much greater economic integration and address an increasing number of regulatory issues (Dür, Baccini and Elsig 2014; Horn, Mavroidis and Sapir 2010). The debate on how regionalism affects multilateralism is shifting from issues related to tariff discrimination to focus on the diffusion of specific regulatory provisions.

A widespread assumption now found in the literature – and adopted in this chapter – is that the most broadly diffused regulatory provisions within the global PTA network are also the most likely candidates for multilateralization in the future.⁶ Conversely, clauses that are sporadic or compete with alternative regulatory models are less likely to be multilateralized. As Peter Hall notes, “the principal factors affecting policy at time-1 is policy at time-0” (1993: 277).

Based on this assumption, a number of studies assess the potential multilateralization of PTA clauses (Baldwin and Low 2009; Lejarraga 2014). For example, Miroudot, Sauvage and Sudreau argue that the degree of commonality in service liberalization commitments “suggests that multilateralising RTAs is achievable” (2010: 6). Herman suggests that the similarity of

⁴ More information and the full codebook are available at www.trend.ulaval.ca. The TREND data has been used to visualize the uptake of environmental provisions in PTAs, see: TRENDanalytics.info.

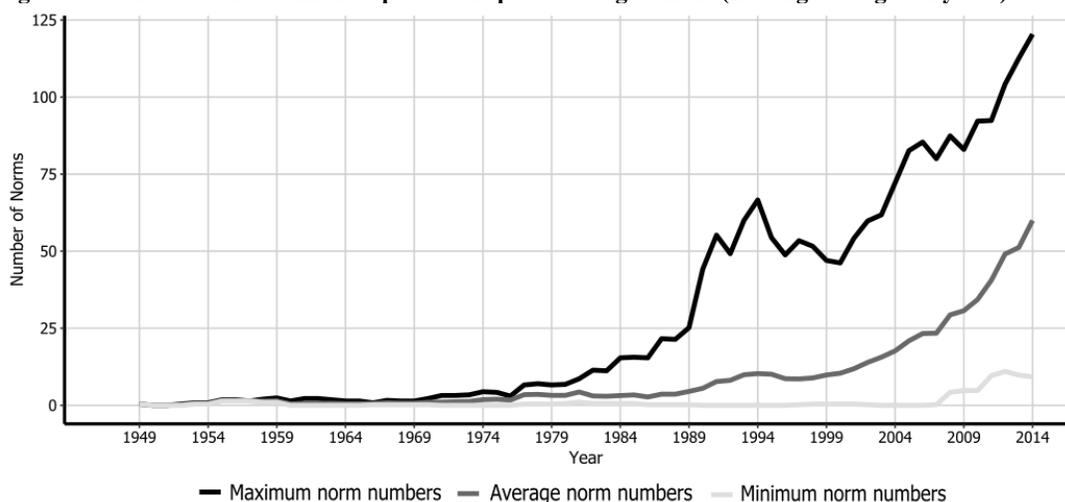
⁵ Most agreements included in the TREND database were drawn from the DESTA project (Dür, Baccini and Elsig 2014)

⁶ Although this assumption is rarely challenged, there are reasons why convergence does not automatically have to lead to multilateralization. For example, a number of recent studies have argued that a dense network of bilateral agreements could function as a polycentric system of law and would reduce the need for a centralized multilateral approach. Rather than being a second-best option, a polycentric system of law could be more flexible, adaptive, innovative and resilient than a multilateral agreement (Morin and Gagné 2007; Schill 2009; Pauwelyn 2014; Morin, Pauwelyn and Hollway 2017). The WTO (2011) also argues that many new issue areas are less likely to be discriminatory in nature, which reduces the need to establish multilateral rules.

some e-commerce provisions means that they could “become building blocks for the multilateral trading system” (2010: 4). Kotschwar considers that the increasing similarity in investment provisions is “a positive harbinger for an eventual multilateral investment regime” (2009: 399). Yet, Berger and Liu (2017) point to significant residual variation between the G-20 countries in terms of their approach to investment protection, which raises doubts about the prospects of a multilateral investment agreement. Likewise, Morin (2009) suggests that the lack of convergence between different intellectual property provisions in PTAs limits their potential impact on multilateral intellectual property agreements.

In the area of environmental protection, some PTA clauses are widely diffused, which gives them greater potential for multilateralization. Every PTA concluded in the last 25 years has at least one environmental provision. Moreover, as indicated in Figure 1 below, the average number of environmental clauses found per agreement has increased steadily. According to the TREND dataset, the average was only two in 1947 but rose to 75 in 2016. The record for the PTA with the highest number of environmental provisions is frequently broken. The most recent was on February 4th 2016, with the signature of the Transpacific Partnership, for which TREND registered 137 different types of environmental clauses.

Figure 1. Number of environmental provisions per trade agreement (moving average \pm 2 years)



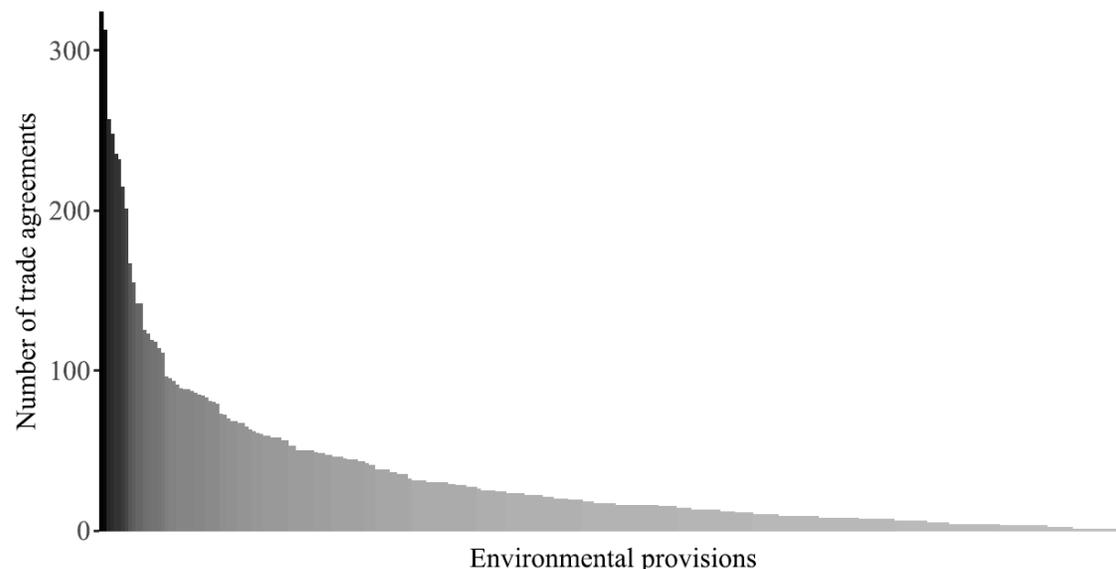
The general trend in PTA negotiations is to copy and paste existing clauses (Allee and Elsig 2016). Similarly, most environmental provisions are duplicated from earlier PTAs (Morin, Pauwelyn and Hollway 2017). Of the 137 different types of environmental clauses included in the Transpacific Partnership, only two were unprecedented (on the prevention of environmentally harmful subsidies). The remaining 135 clauses were reproduced from pre-existing PTAs. Another recent example is the 2016 Comprehensive Economic and Trade Agreement between the EU and Canada. It has 116 environmental clauses, but only includes one innovation (the exclusion of water from its scope). As a result of this duplication practice, 59 specific environmental provisions can now be found in more than 50 PTAs and 20 provisions in more than 100 PTAs.

Several governments have their own template agreement. In general, they reproduce the PTA clauses found in their earlier agreements. Yet, negotiators also learn from the experience of other countries. When drafting a PTA, they may include clauses that were initially designed by third parties. This can lead to a global convergence of PTAs. For example, recent European agreements have integrated some features from US agreements, such as stricter enforcement

rules of domestic environmental law, environmental safeguards on investment matters and enhanced protection on regulatory sovereignty (Morin and Rochette 2017). Likewise, an increasing number of Asian countries have included in their PTAs provisions relating to climate change and initially designed by the EU (Morin, Michaud and Bialais 2016).

Some environmental provisions have not been broadly diffused in the PTA network (Draper *et al.* 2017; Bruhn *et al.* 2017; Morin and Gauthier-Nadeau 2017). For example, the common but differentiated responsibility principle and the obligation to ratify the Kyoto Protocol are only found in EU trade agreements (Morin and Sikina 2017). Similarly, only US trade agreements allow for the suspension of trade concessions when a country does not provide monetary compensation after failing to comply with its own environmental laws (Morin and Rochette 2017). Data obtained from TREND indicate that 56 types of environmental provisions are found in five or less trade agreements.

Figure 2. Number of occurrences for each of the 286 types of environmental provisions documented in TREND



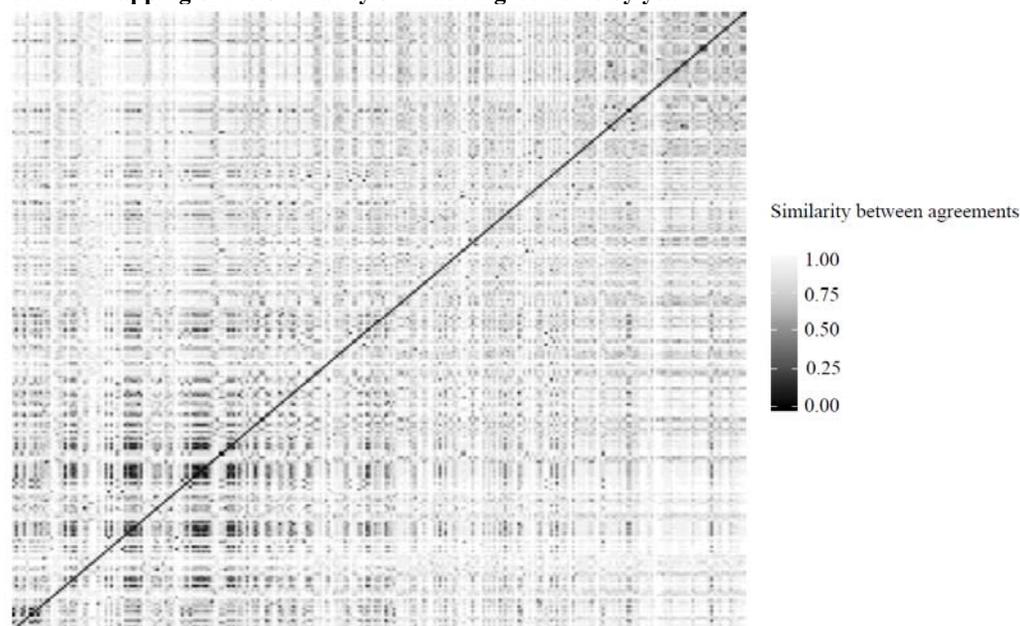
Several factors explain why some PTA provisions are more widely adopted than others (Bruhn *et al.* 2017). The most important factor is the date when the environmental provision is first introduced. The earlier the provisions are introduced, the more likely they are to be adopted by other PTAs. The older the provisions, the more time they have to generate a network effect and influence the entire PTA system on a structural level (Morin *et al.* 2017: 387).

Figure 3 below provides a heat map, showing the overlap in environmental norms between trade agreements on a chronological basis (along the *x* and *y* axes). The light gray hue in the top left and bottom right corners is associated with higher Jaccard distance measures, suggesting a disparity between older and more recent agreements.⁷ The darker hue in the bottom left corner reveals that some of the oldest PTAs had very few environmental provisions. The top right corner is the most interesting for the purpose of this study. Although recent agreements have adopted more and more environment provisions, the actual design of these environmental provisions remains quite dissimilar. This observation largely results from the fact that, in the context of a rapid increase in the average number of environmental provision per agreement,

⁷ The Jaccard distance measures the dissimilarity between the environmental provisions in trade agreements.

the diffusion of some environmental provisions is counterweighed by the introduction of unprecedented provisions.

Figure 3. Heat Mapping of the Similarity of Trade Agreements by year



To sum up, the diffusion of environmental clauses varies considerably. Some are widely diffused, while others have very limited diffusion. This is a key factor for assessing the potential of PTA environmental clauses in terms of multilateralization. Indeed, the question is not whether recent PTAs converge, but whether a set of clauses has been diffused sufficiently widely to make multilateralization feasible. This question remains, even when some clauses have not been widely accepted and are unlikely to be included in a multilateral agreement.

C. Multilateralization Scenarios

This section presents five ideal types of multilateral agreements, each resulting from a different hypothetical scenario. The first, which is the most intuitive and perhaps the most naïve scenario, involves a future multilateral agreement that brings together the most frequent clauses found in the PTA population. The second scenario anticipates that provisions, which have been adopted at least once by several countries, will find sufficient support for multilateralization. The third scenario predicts that increasingly popular clauses will generate sufficient momentum for multilateralization. The fourth scenario expects powerful countries to impose their joint preference and duplicate clauses from their own PTAs in a multilateral agreement. The last scenario forecasts that clauses found in PTAs with a large membership will be deemed the most appropriate for a multilateral agreement.

The five scenarios generate five multilateral agreements, each of which is made up of a particular selection out of 239 candidate environmental provisions.⁸ This pool of 239 provisions is directly drawn from the 286 types of clauses documented in the TREND dataset. In our analysis, we excluded 13 types of environmental clauses because they were too vague, for

⁸ Note that scenario analysis does not assess the likelihood that the respective scenarios will occur. As mentioned above, it explores different scenarios to encourage debate with regard to the environmental content of future multilateral agreements.

example, the requirement to implement an unspecified environmental agreement other than the 20 MEAs identified in TREND. We also merged six pairs of clauses because of their similarity, for example, the commitment to use an unspecified market-based instrument and the commitment to use a specific market-based instrument for environmental protection. Finally, we excluded 28 types of environmental provisions, which are already found in WTO multilateral agreements. It would be pointless to argue that the exception to trade commitments for a domestic measure necessary to protect plants or animals is sufficiently diffused to be multilateralized, as this exception can already be found in the GATT of 1947.

We made the arbitrary assumption that any future multilateral agreement would include 43 of the 239 remaining environmental provisions. This assumption is based on the fact that PTAs signed in the last 5 years (from January 1st 2012 to December 31st 2016) include on average 43 environmental provisions⁹ The fictional 43-clause agreements resulting from the five multilateralization scenarios are described below.

I. *The Routine Scenario*

The *Routine Scenario* combines the most frequent PTA environmental provisions. This scenario assumes that the same factors that drive the diffusion of certain environmental clauses in the PTA network will also promote them at the multilateral level. In particular, when it comes to negotiating environmental clauses, countries with well-established routines and standard operating procedures will insist on duplicating clauses from their earlier agreements. Moreover, these countries are likely to be supported by their trade partners who have already endorsed these clauses.

In comparison with other multilateralization scenarios, the *Routine Scenario* would bring several benefits to WTO members. It would offer low transaction and management costs for the negotiation and implementation of the multilateral agreement, respectively. It would also allow trade negotiators to reduce risk and uncertainty, by building on clauses that have been tried and tested.

With the *Routine Agreement*, we simply selected the 43 most frequent clauses from the 239 clauses with the potential for multilateralization. The most frequent clause occurred 156 times and concerns the commitment to cooperate further on environmental matters. The 43rd most frequent clause – and, thus, the last to be included in the *Routine Agreement* – is a statement that environmental protection and trade are mutually supportive (44 occurrences).

Several of the most frequent environmental clauses are exceptions to trade commitments. Many exceptions were excluded from the *Routine Agreement* because they already appear in a WTO agreement. Nevertheless, some of the most frequent environmental clauses would be new to the WTO. In particular, 124 PTAs include a general exception for measures “related to environmental protection”. This wording is broader than the one that features in the GATT article XX(b) for the protection of plants and animals, and XX(g) for measures “related to the conservation of exhaustible natural resources”. The exceptions provided in GATT article XX paragraph (b) and (g) have already been the focus of several trade disputes. Therefore, broadening article XX to include any environmental measure would have major implications.

⁹ The Appropriate Agreement has 44 provisions because the provisions at the 43rd and 44th position have an equal score.

II. *The Consensual Scenario*

Some of the provisions in the *Routine Agreement* may only have been endorsed by a few countries. For example, this could be the case for clauses promoted by a small group of countries that have signed several bilateral PTAs among themselves. However, considering the political process of multilateral negotiations and the procedural norm for consensus-based decision-making at the WTO, a clause that is found in several PTAs, but is only endorsed by a few countries, has little chance of being multilateralized. Hence, the *Consensual Scenario* considers the number of countries that have previously endorsed a particular clause – even sporadically – rather than the number of agreements that include this clause. This scenario expects that a multilateral agreement would bring together clauses that have been accepted, at least once, by a large number of countries.

To build the *Consensual Agreement*, we combined the 43 clauses that were adopted by the most countries.¹⁰ The most widely accepted clause, supported by 179 countries, concerns a restriction on the trade of hazardous waste. The 43rd most widely accepted clause, supported by 118 countries, calls for further cooperation on the specific issue of desertification.

Some of the most widely accepted provisions relate to specific environmental issue-areas. In addition to hazardous waste and desertification, clauses found in the *Consensual Agreement* address issue-areas as diverse as fisheries, energy efficiency, forest conservation, ocean protection, contaminated land, the ozone layer and biodiversity. This issue-specific approach, which is increasingly common in PTA environmental chapters, is still absent from WTO agreements. Multilateralizing these clauses would be a significant development.

III. *The Trendy Scenario*

A clause could be duplicated in several PTAs and endorsed by several countries simply because it was introduced a while ago and has had time to spread gradually. For this reason, the two previous scenarios introduce bias in favor of older provisions. In contrast, the Trendy Scenario assumes that the increasingly popular clauses are more likely to be multilateralized in the future because countries are more inclined to promote them at present. These clauses address issues that are perceived as being increasingly important. The momentum generated by their current popularity may facilitate their inclusion in a multilateral agreement.

To identify the contours of the *Trendy Agreement*, we consider the change in the diffusion rate of each clause over the last 20 years. We started by calculating the percentage of PTAs signed between 1997 and 2006, which included the given clause. Then, we looked at the percentage of PTAs that included the same clause in the following decade, from 2007 to 2016. The *Trendy Agreement* included the 43 clauses for which the rate of diffusion had increased the most.

The trendiest environmental clause appears to be the general obligation to exchange information related to the environment. It is included in 14% of the PTAs signed between 1997 and 2006. The percentage rises to 53% for the 2007-2016 period (an increase of 39 percentage points). The second trendiest environmental clause is the prohibition to encourage investment by relaxing environmental measures. It is included in 11% of PTAs signed between 1997 and

¹⁰ Some PTA clauses have been accepted by more than 164 countries, which exceeds the current WTO membership (164 members). Nevertheless, given the scale and expansion of WTO membership, we did not limit our analysis to current WTO members.

2006 and in nearly 50% of all PTAs signed between 2007 and 2016 (an increase of 38 percentage points).

Several other provisions in the *Trendy Agreement* have become increasingly frequent because they address environmental issue-areas that recently gained in prominence. The clause calling parties to reduce greenhouse gas emissions increased by 23 percentage points and the clause calling parties to share the benefits generated by the use of genetic resources gained 17 percentage points. However, these trendy provisions remain politically sensitive and are likely to meet with opposition from some powerful WTO members.

IV. *The Power-Game Scenario*

Despite the fact that the WTO operates on the basis of consensus, not all countries have an equal influence over multilateral negotiations. This fact is considered in the *Power-Game Scenario*. It predicts that powerful countries will take advantage of their market size and normative power to ensure that their preferred clauses are included in a multilateral agreement. Previous studies have already established that the PTAs drawn up by the two most influential actors in the trade regime, namely the US and the EU, are often used as models by third countries when they are drafting their own PTAs (Jetschke and Lenz 2013; Allee and Elsig 2016).

However, the US and the EU do not promote the same set of environmental clauses in their respective PTAs (Morin and Rochette 2017). As Hoekman and Winters rightly remark, “the accretion of two different groups of supporters around two different models – say a US and a EU model – could make the final multilateral step [...] less rather than more likely” (2009: 239). The *Power-Game Scenario* predicts that the US and the EU will avoid this deadlock situation by promoting clauses that they have both previously endorsed.

In the *Power-Game Agreement*, for each potential clause, we multiply the percentage of its uptake in US agreements by the percentage of uptake in EU agreements. If a clause is found in all US agreements (100%) but in none of the EU agreements (0%), the score is 0. The 43 provisions with the highest score are those that are most likely to be jointly supported by the US and the EU.

Two groups of provisions in the *Power-Game Agreement* are particularly worthy of note. First, the agreement includes a number of clauses related to scientific cooperation, such as commitments to jointly conduct environmental monitoring, scientific research, as well as environmental impact assessments (of the trade agreement). Second, the *Power-Game Scenario* would lead to the adoption of clauses that aim to level the playing field in terms of trade competition. They include provisions that call for a high level of environmental protection in domestic law, to harmonize certain environmental measures, and to effectively enforce environmental regulations. These clauses are typical of the PTAs signed by either the US or the EU with developing countries.¹¹ They reflect the interest of the US and the EU to level the playing field among trading partners in order to prevent other countries from taking advantage of low environmental standards and their inadequate implementation.

V. *The Appropriate Scenario*

¹¹ For a discussion of the role of environmental provisions from the perspective of emerging economies, see Berger et al. (2017).

The last fictional agreement results from the *Appropriate Scenario*. It is a compilation of clauses typically included in PTAs with a large membership. The literature on the rational design of international treaties argues that the number of parties is likely to have an influence on the agreement's scope, as well as on its degree of centralization, control and flexibility (Koremenos, Lipson and Snida 2001: 797). Thus, it is reasonable to expect that the distinctive characteristics of PTAs with a large membership will also be deemed appropriate for a multilateral agreement.¹²

Previous studies have already established that PTAs with a large membership exhibit specific features when it comes to dealing with environmental issues. Morin et al. (2017) have found that the more parties are involved in a PTA, the more likely it is to include several environmental clauses. Hollway et al. (2017) have observed that PTAs with a large membership are also more likely to innovate and design environmental clauses, which are unprecedented in the trade regime. Bruhn et al. (2017) have further established that environmental clauses, which are first introduced in a PTA with a large membership, are more likely to be included in subsequent agreements.

To determine which clauses to include in the *Appropriate Agreement*, we identified the two agreements involving the highest number of parties and considered each of the 239 candidate clauses in turn. We then added together the number of parties that were signatory to both agreements. This technique was adopted in order to reduce the risk of including a clause in the *Appropriate Agreement* simply because it featured in a single large-membership agreement, such as the Cotonou Agreement between the EU and African, Caribbean and Pacific countries. At the same time, we wanted to avoid having to factor in the number of PTAs that include the clause and its diffusion in low-membership agreements.

Several provisions covered by the *Appropriate Agreement* address developing countries' concerns, for example, with regard to commitments to providing technical assistance to other parties, funding mechanisms for capacity building and assistance to non-state actors. Another distinctive feature of the *Appropriate Agreement* is the inclusion of several provisions that promote greater coherence between environmental policy and other policy areas, such as mining, tourism, social issues, rural development, urban planning, transport, energy and human health. Overall, the *Appropriate Agreement* seems to adopt a broad holistic approach when it comes to considering the interplay between trade and the environment.

D. Analyzing the Scenarios

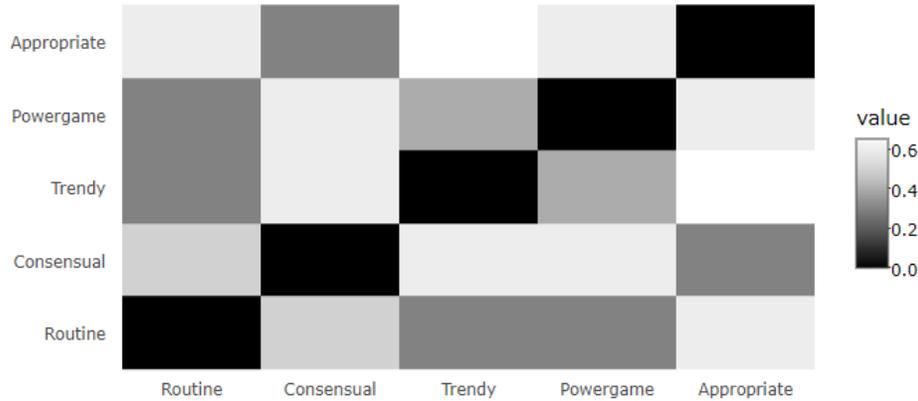
The five ideal-type scenarios make different assumptions about the underlying dynamics of multilateralization. Therefore, they generate different outcomes, i.e. the content of the resulting multilateral agreements varies. In this section, we take our analysis a step further and compare the similarity of the five ideal multilateral agreements. We compare their content on the basis of two statistical approaches, the Jaccard index and the Kendall rank correlation. We also explore the common ground between the five different scenarios outlined above in order to identify their commonalities and analyze the characteristics of a *Common Ground Agreement*.

I. Comparing the scenarios

¹² For this reason, Helble considers that “several chapters of the TPP can become blueprints for ongoing and upcoming negotiations at the multilateral level” (2017).

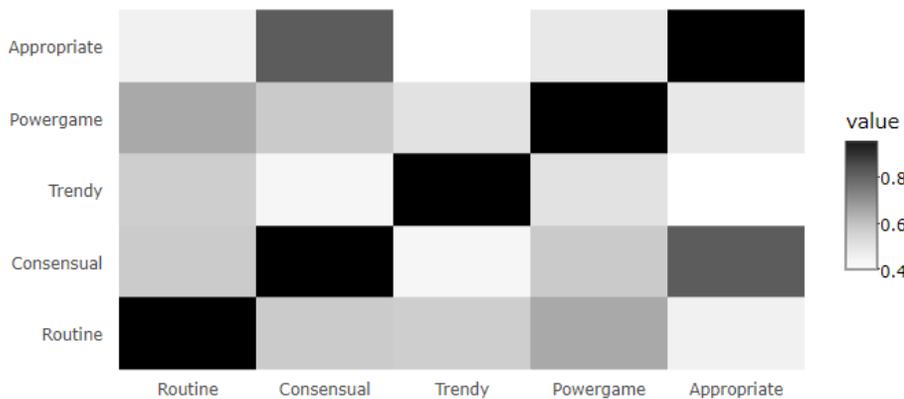
As a first step to compare our five scenarios, we use the Jaccard coefficient measure to calculate the similarity (or distance) between sample sets.¹³ In our case, it is used to measure the similarity between two ideal-type agreements in terms of the number of identical provisions they share. The results appear in Figure 4 below. The darker the area, the more similar the two agreements are. The most similar agreements have a value of 0 and dissimilar agreements have a value of 1.

Figure 4. Jaccard distance between the five ideal-type agreements



In addition to the Jaccard Index, we use the Kendall rank correlation coefficient to compare the different scenarios. While the Jaccard coefficient only considers the presence or absence of each provision in the five ideal-typical 43-clause agreements, the Kendall rank measures the similarity in terms of the order of the 239 candidate clauses.¹⁴ When clauses have a similar rank, the Kendall rank coefficient is high (up to 1). When the order of the clauses in two scenarios is dissimilar, the Kendall rank coefficient is low (down to -1). The results appear in Figure 5 below.

Figure 5. Kendall rank correlation between the five ideal-type agreements



The comparison of the five ideal-type scenarios using the Jaccard distance or the Kendall rank produced some interesting results. Irrespective of the comparative method used, the

¹³ The Jaccard coefficient is defined as the size of the intersection divided by the union of the sample sets: $J(\mathbf{X}, \mathbf{Y}) = |\mathbf{X} \cap \mathbf{Y}| / |\mathbf{X} \cup \mathbf{Y}|$. The Jaccard distance is obtained by subtracting the Jaccard coefficient from 1.

¹⁴ Thus, for the Kendall rank correlation, we computed the entire set of 239 clauses.

Appropriate Agreement (which concerns clauses typically included in PTAs with a large membership) and the *Consensual Agreement* (which concerns clauses adopted by a large number of countries), appear to include quite similar environmental provisions. This similarity undoubtedly results from the fact that, by definition, large plurilateral agreements include many parties.

Using the Jaccard distance and, to a lesser extent, the Kendall rank correlation, the *Power-Game Agreement* (which focuses on the provisions negotiated by powerful countries) and the *Routine Scenario* (which includes the most frequent environmental provisions across all PTAs) also appear to be quite similar. This can be explained by the fact that the EU and the US are not only the most powerful negotiating partners; they are also prolific and have negotiated numerous PTAs.

The Jaccard distance also reveals the similarity between the *Trendy Scenario* (which focuses on the provisions with the fastest growing diffusion rates) and the *Routine Scenario*. This similarity probably results from the fact that a huge number of PTAs have been signed in recent years.

The comparative analysis also points to dissimilarities. The *Appropriate* and the *Trendy Agreements* are the least similar pair of agreements (using the Jaccard distance or the Kendall rank correlation). This dissimilarity could be due to the fact that most large-N agreements, including the series of Lomé Agreements between the EU and African, Caribbean and Pacific countries, was signed more than 15 years ago. In addition, the dissimilarities between the *Power-game* and the *Consensual Agreements*, and between the *Power-game* and the *Appropriate Agreements*, suggest that the clauses typically included in EU and US agreements differ from those typically found in PTAs with a large membership, which include many developing countries. However, there is some overlap between the *Power-Game Agreement* and other ideal-type agreements, which suggests that there might be a window of opportunity for multilateralization.

II. *Merging the Scenarios: The Common Ground Agreement*

The five ideal-type scenarios investigated in Section C describe different possible future outcomes. Each scenario is based on a different hypothetical causal driver, which determines the outcome. However, the real-life policy-making processes do not follow mono-causal pathways. For this reason, we have combined the five scenarios to create a *Common Ground Agreement*.¹⁵ The *Common Ground Agreement* takes into account the messiness and the multiplicity of the causal factors that drive policymaking processes in the real world.

The *Common Ground Agreement* was achieved in four steps. First, for each mono-causal scenario described in Section C, the clauses were given a score corresponding to their ranking. Second, the scores were normalized between 0 and 1 to level the different scenarios. This was necessary since a number of clauses had equal ranking in some scenarios. Third, we combined the five different scores obtained for each clause, giving equal weight to the five scenarios. Finally, we selected the 43 clauses with the lowest cumulative score. We assumed that a multilateral agreement on trade-related aspects of environmental governance would include around 43 clauses, as explained in Section C.

¹⁵ We do not perceive the *Common Ground Agreement* as the ultimate or most likely agreement, but we include it here for illustrative purposes.

Table 1 presents the resulting *Common Ground Agreement*. Instead of ordering the 43 environmental clauses according to their score, Table 1 presents them in their general order of appearance in PTAs. This presentation illustrates what a WTO agreement on the trade-related aspects of environmental protection might look like, if WTO members decided to go beyond the 28 existing environmental provisions included in WTO multilateral agreements.

Table 1. The 43 clauses of the *Common Ground Agreement*

General principles		
1	The Parties have the right to establish their own levels of environmental protection.	0.94
2	The Parties recognize the mutual support that exists between environmental and trade policies.	1.34
Domestic level of protection		
3	The Parties agree that they shall not use environmental laws for protectionist purposes.	1.89
4	Parties shall not encourage trade by reducing the levels of environmental protection.	1.34
5	Parties shall not encourage investment by reducing the levels of environmental protection.	1.01
6	Each party shall ensure that its laws provide for high levels of environmental protection.	1.32
7	Each Party shall strive to continue to improve their environmental laws.	1.05
8	Each Party shall take account of scientific information in environmental policymaking.	1.79
9	A Party shall not fail to effectively enforce its environmental laws.	1.13
Promotion of environmental protection		
Each Party shall promote:		
10	▪ Public awareness by ensuring that information is available to stakeholders;	0.59
11	▪ The development of voluntary environmental measures;	0.48
12	▪ The development of market-based incentives;	1.81
13	▪ Trade of environmental goods and services.	0.82
Inter-state environmental cooperation		
14	The parties shall cooperate in the field of environmental protection.	0.02
Cooperation shall include:		
15	▪ Technical and scientific cooperation programmes;	
16	▪ Development of strategies for conducting environmental impact assessment;	0.44
17	▪ Systems of information on the state of the environment;	0.08
18	▪ Procedures for harmonizing technical environmental regulations;	1.09
19	▪ Coordination with respect to multilateral negotiations on environmental issues.	0.18
20	To achieve this cooperation, representatives of the Parties should meet regularly.	0.78
Specific environmental issue-areas		
Cooperation shall focus on:		
21	▪ The control and prevention of marine pollution;	0.70
22	▪ The protection of forests;	1.04
23	▪ The conservation of fishery resources;	0.70
24	▪ The development of parks, reserves and controlled areas;	1.53
25	▪ The promotion of renewable energy production;	0.55
26	▪ The promotion of energy efficiency;	0.63
27	▪ The reduction of greenhouse gas emissions;	1.78
28	▪ The general issue of climate change;	1.76
29	▪ The reduction of atmospheric pollution;	1.58
30	▪ The management of domestic waste;	1.43
31	▪ The management of hazardous waste.	0.40
Policy coherence		
32	Parties shall incorporate environmental considerations in any policy measure.	0.61
Each Party shall endeavor to improve coherence between environmental policies and:		
33	▪ Energy policies	0.96
34	▪ Mining policies	1.92
35	▪ Tourism policies	1.68
36	▪ Social security policies	1.32
37	▪ Transport policies	1.10
Assistance to developing countries		
38	Developed countries shall provide capacity building to developing countries parties.	0.26
39	The Parties shall encourage the transfer of environmental technologies.	1.92
40	The Parties shall make funds available to implement this agreement.	1.40
Implementation		
41	Each Party shall designate a contact point for the implementation of this agreement.	1.30

- 42 The Parties shall engage the public in activities undertaken to implement this agreement. 0.89
43 The Parties shall resolve any dispute that may arise through consultations. 0.88

The *Common Ground Agreement* contains a range of environmental provisions, which could potentially provide a common basis for the multilateralization of environmental norms. Like the *Routine Agreement*, it includes norms that occur frequently, for example, the general commitment to cooperate on environmental matters, the commitment to share environmental information and recognition of the states' regulatory sovereignty on environmental policies. The *Common Ground Agreement* borrows several issue-specific measures from the *Consensual Agreement*, such as those on hazardous waste, fisheries, energy efficiency, and forest and marine pollution. It also includes norms on climate change, including energy efficiency, renewable energy and greenhouse gas emissions, which also appear in the *Trendy Agreement*. In line with the *Power-Game Agreement*, the *Common Ground Agreement* contains several provisions that aim to level the playing field between parties by ensuring that they maintain a high level of protection, refrain from using environmental policy for trade purposes and effectively enforce their domestic laws. Finally, the *Common Ground Agreement* shares similar features with the *Appropriate Agreement*, for example, norms relating to policy coherence between environmental protection and other issue-areas, including trade, tourism and transport. Overall, the provisions in the *Common Ground Agreement* address the concerns of different types of countries, including developed and developing countries.

The *Common Ground Agreement* is not merely a combination of different interests. It actually constitutes the area where the different ideal-type scenarios overlap. Indeed, 19 out of its 43 clauses can be found in the five ideal-type agreements identified in Section C. Only three clauses in the *Common Ground Agreement* feature in just two ideal-type agreements. This suggests that most provisions in the *Common Ground Agreement* would face little to no opposition if they were introduced in the WTO context.

In light of the current stalemate in the WTO and in particular its consensus-based negotiation process, one could assume that the potential multilateralization of environmental issues in the global trade regime would mainly be plausible for provisions that are less precise and less restrictive and would be thus less costly for WTO members. On the one hand, the *Common Ground Scenario* does indeed include a number of general and rather vague provisions such as clauses that establish mechanisms for cooperation among the contracting parties. Furthermore, a number of provisions are intended to create or preserve the policy space for regulation in the interest of the environment and can thus be considered as non-costly.

On the other hand, and perhaps most surprisingly, the *Common Ground Agreement* also includes a number of provisions related to specific environmental issue-areas. These provisions address issue-areas as diverse as hazardous waste, fisheries, domestic waste, marine pollution, forest conservation, atmospheric pollution and renewable energy. As indicated above, multilateralizing these provisions would constitute significant progress at the interface between trade and the environment.

Moreover, the *Common Ground Scenario* includes provisions that are intended to improve the level of implementation of domestic environmental laws – that are well-developed on paper in several countries but are often not adequately implemented – and improve the level of domestic enforcement. Such obligations can entail substantial costs, in particular for developing countries.

In terms of enforcement, the multilateralization of environmental provisions would have strong implications both from a legal and a political perspective. In most PTAs, environmental provisions are not subject to stringent dispute settlement and the partner countries typically opt for consultative approaches to settle potential disputes. This would change due to the incorporation of environmental provisions in the WTO that includes a binding dispute settlement mechanism. From a legal point of view, this is important as dispute settlement proceedings can help to concretize and operationalize the meaning of environmental provisions. From a political point of view, subjecting environmental provisions to a more stringent dispute settlement processes could help to improve the compatibility of the trade and environmental regimes.

Moreover, the *Common Ground Agreement* includes many provisions that address the interaction between the environment and non-environmental issues, such as energy policies, social issues, transport, tourism and mining. These provisions might be among the least trade-related environmental provisions found in PTAs. Nevertheless, their high frequency and widespread distribution suggest that they might be strong candidates for multilateralization.

Another surprising feature of the *Common Ground Agreement* is the absence of provisions referring to MEAs. A number of prominent PTAs require parties to ratify or implement specific MEAs, such as the Convention on Biological Diversity, the Ramsar Convention on Wetlands and the Montreal Protocol on Substances that Deplete the Ozone Layer. Some well-known PTAs, including NAFTA, also list MEAs that should prevail in the event of incompatibility with trade commitments. Yet, these PTAs do not appear to refer to the same MEAs. The US and the EU, in particular, refer to different sets of MEAs in their respective PTAs. The former privilege agreements on endangered species and the latter on climate change and biosecurity (Morin and Bialais 2018).

As a result of this divergence, references to MEAs are absent from the *Common Ground Agreement*. This absence is a sticking point given that the portion of the 2001 Doha Agenda related to the environment specially mandated negotiations on “the relationship between existing WTO rules and specific trade obligation[s] set out in multilateral environmental agreements”, as well as “procedure[s] for regular information exchange between MEA secretariats and the relevant WTO committees”. The analysis presented in this chapter, which is based on previous PTA experience, suggests that WTO members were not prepared to move forward in this direction. However, they might be ready to progress in areas unforeseen by the Doha Declaration.

E. Conclusion

Environmental provisions are an increasingly common feature of modern trade agreements. Given the ever-increasing demands to improve the coherence of the trade regime with regard to the climate and other environmental issues, it seems appropriate to consider the possible multilateralization of environmental clauses. In this context, this chapter has explored several different scenarios with a view to identifying the norms that are most likely to be multilateralized in the WTO rulebook.

The five scenarios, and their underlying causal mechanisms, assessed in this chapter are all ideal types, which are unlikely to actually occur in real life. However, their comparison offers insights into how the multilateral trade system might move forward. Despite the heterogeneity of PTA environmental provisions, the *Common Ground Agreement* reveals that they do share

common features. This suggests that it might be feasible to multilateralize PTA environmental clauses.

At the same time, further analysis of the multilateralization of environmental provisions is required. Indeed, few studies identify which environmental clauses are the most important ones to multilateralize. The literature is just starting to assess the trade and environmental impacts of environmental clauses (Baghdadi *et al.* 2013; Martínez-Zarzoso and Oueslati 2016; Bastiaens and Postnikov 2017).

As noted in an OECD report, “transparency and exchanges of experience are important to ensure that progress on environmental matters in RTAs eventually feeds into the multilateral trading system” (OECD 2007: 11). Information sharing via seminars, workshops and online datasets, such as DESTA, TREND Analytics and RTA Exchange constitutes a first step in this direction. This chapter aims to contribute by envisioning different scenarios of multilateralization. The next step is to assess and compare the impact of these various scenarios.

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