14

Taking Climate Change Seriously in the Design of Trade Agreements

Clara Brandi, Kateryna Holzer, Jean-Frédéric Morin, and Harro van Asselt

14.1 INTRODUCTION

The environmental implications of trade agreements have long been contested. Some analysts and activists have suggested that preferential trade agreements (PTAs) lead to environmental degradation. Ken Conca, for example, argued at the turn of the century that the trade regime dismantled 'decades of global environmental rule making' and sold 'important dimensions of the global commons' (Conca 2000: 492). Others have a more nuanced outlook. Tana Johnson, for instance, argues that the 'international trade regime offers various instruments by which states can pursue environmental policies, even at the expense of freer trade' (Johnson 2015: 207).

This debate echoes trade's multiple and conflicting effects on the environment. On the one hand, it is undeniable that increased trade has various negative impacts on the environment, including increased extraction of natural resources, the introduction of invasive species, and air pollution from the shipping sector. On the other hand, trade facilitates the diffusion of clean technologies, globalises environmental standards, and favours greater efficiency in resource consumption. These negative and positive impacts occur simultaneously. The question is not whether trade is inherently harmful or virtuous, but under what conditions trade's net effect is environmentally positive.

In answering this question, it is crucial to acknowledge that variations in the design of PTAs matter. In particular, recent research suggests that the inclusion of environmental provisions (EPs) in PTAs can make a significant difference in improving their environmental performance. Jinnah and Lindsay (2016) provide evidence that PTAs with EPs can favour the diffusion of environmental norms and increase compliance with multilateral environmental agreements. Brandi et al. (2019) show that PTAs with EPs promote environmental reforms at the domestic level, particularly in developing countries. In another study, Brandi et al. (2020) find that EPs can help reduce dirty exports and increase green exports from

developing countries. Abman et al. (2021) observe that PTAs with EPs offer sufficient protection to offset the net increases in forest loss observed in other PTAs. Several studies find that PTAs with EPs are associated with lower emissions of greenhouse gas (GHGs) and atmospheric particulate matter than PTAs without such provisions (Baghdadi et al. 2013; Zhou et al. 2017; Martinez-Zarzoso and Oueslati 2018; Sorgho and Tharakan 2022).

That said, environmental chapters in PTAs have not reached their full potential. Several of their provisions are vague, weak, and unimaginative (Morin and Jinnah 2018). Yet, it remains unclear how to improve their design. Until now, the literature on the design of environmental chapters in PTAs has focused on enforcement mechanisms (Bastiaens and Postnikov 2017; Velut et al. 2022). Here, we take a different and complementary approach. We look at the design of climate-related provisions, as climate change is one of the most pressing and vital environmental issues (IPCC 2021).

This chapter is divided into two parts. The first part reviews existing trends and patterns in EPs of PTAs. To this end, we develop a typology of four different types of EPs. The second part focuses on four climate-related provisions, each associated with one of these four different types of EPs. We subsequently discuss various options to make these provisions stronger and more precise.

14.2 THE CURRENT DESIGN OF ENVIRONMENTAL PROVISIONS

This first part builds on an updated version of the TRade and ENvironment Database (TREND) data set (Morin et al. 2018) to review existing trends and patterns in the design of EPs in PTAs (for a recent overview, see also Brandi and Morin, 2023). This data set was built by borrowing the full text of 774 PTAs from the Design of Trade Agreements (DESTA) collection (Dür et al. 2014) and identifying in them the occurrence of 300 different types of EPs. These provisions are remarkably diverse. They include, for example, the polluter-pays principle, the exclusion of environmentally harmful inventions from patentability, the requirement to consult stakeholders when adopting domestic regulations, and the expression of support for an international moratorium on whaling.

As Figure 14.1 shows, the average number of EPs per PTA is increasing. In the last decade, not a single PTA was concluded without including at least a few EPs. In fact, several recent PTAs include more than 100 different EPs as documented by the TREND data set. The record for the PTA with the highest number of EPs is frequently broken. In 2018, the United States–Mexico–Canada Agreement (USMCA) included no fewer than 153 EPs, according to the TREND catalogue.

However, the number of EPs is not necessarily a good measure of how 'green' a PTA is. It is possible to fill the pages of an environmental chapter with meaningless provisions. To have a better sense of the types of provisions that are included in PTAs, we classify EPs along two dimensions: the first concerns EPs' targeted subject

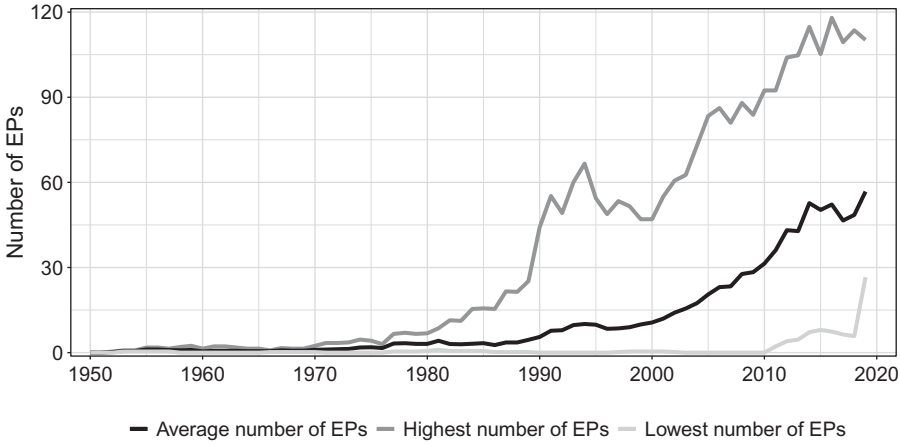

FIGURE 14.1 Growing number of EPs per year.
Source: authors' elaboration (based on Brandi and Morin 2023)

(the parties to the PTA) and the second concerns their targeted object (the environmental issue area). We discuss these two dimensions in turn.

14.2.1 *Defensive and Offensive Provisions*

The first dimension distinguishes provisions that states adopt to protect their own regulatory sovereignty on environmental matters from provisions that states adopt to change their partners' environmental regulations. We call the former 'defensive provisions' and the latter 'offensive provisions' (Blümer et al. 2020). A well-known example of defensive EPs is the exception to trade commitments for domestic measures necessary to protect the life and health of humans, animals, and plants. This exception, expressed most notably in Article XX(b) of the General Agreement on Tariffs and Trade (GATT), is found in at least 310 PTAs. Another example of a defensive provision is the precautionary principle, which protects parties' right to regulate even when there is a lack of scientific certainty over the negative externalities of the regulated subject matter.

By contrast, offensive provisions prescribe specific environmental rules, policies, or behaviours. Examples of offensive provisions include commitments to restrict exports of hazardous waste, to combat illegal fishing, and to ratify certain environmental agreements. States typically support offensive provisions to induce changes in their partners' policies or to make sure that these partners do not lower their level of environmental protection.

We do not make any claim regarding the true motivations underlying either defensive or offensive provisions. Arguably, both types can be driven primarily by economic considerations. Defensive provisions can shield domestic firms from foreign competitors, and offensive provisions can level the playing field with trade

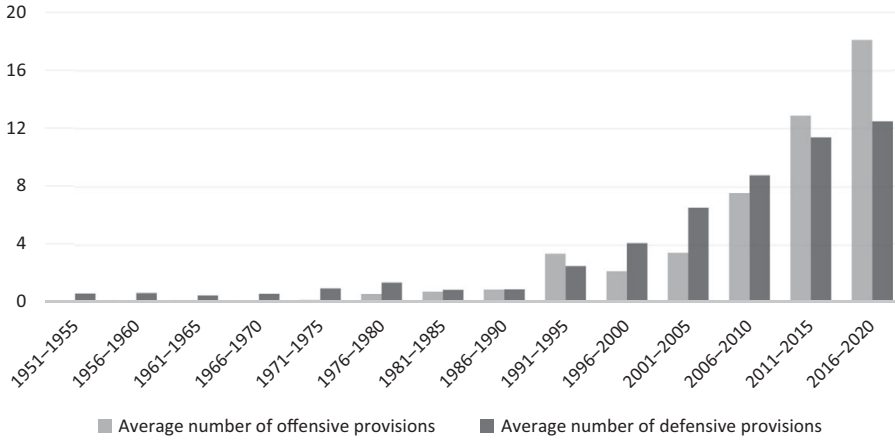

FIGURE 14.2 Average number of offensive and defensive provisions per PTA.
Source: authors' elaboration (based on Brandi and Morin 2023)

competitors. Nevertheless, from an environmental governance perspective, both types play an important role. One type is not intrinsically more valuable than the other. It is equally essential to protect the capacity of states to adopt ambitious environmental regulations and to encourage states to increase their level of protection.

The average number of defensive provisions per PTA grew substantially over the last thirty years (see Figure 14.2). This growth, in part, reflects the increasing depth of PTAs (Dür et al. 2014). Recent PTAs go well beyond the liberalisation of trade in goods and the reduction of tariff barriers. The range of trade issues covered in PTAs is constantly expanding and commonly includes issues such as intellectual property, services, public procurement, and agriculture. Since each of these new chapters includes new trade commitments, states agree on new (defensive) environmental exceptions to limit these commitments.

The growth in the average number of defensive provisions is also fuelled by controversial trade disputes related to domestic environmental regulations. In the 1990s, the tuna–dolphin and the shrimp–turtle cases convinced the United States (US) that it should better protect itself against future legal challenges over its environmental regulations. At the request of US negotiators, the North American Free Trade Agreement (NAFTA, now supplanted by the USMCA) included numerous provisions protecting regulatory sovereignty. The agreement specifically stated that each party may 'establish the level of protection it considers appropriate' (Article 904). The NAFTA also provided that certain multilateral environmental agreements should prevail over any trade commitments in case of inconsistency (Article 104).

Investor–state disputes also led to the design of new defensive provisions. In the last thirty years, several disputes opposed a foreign investor to a host state concerning environmental regulations. They include the *Metalclad*, *Ethyl*, *S.D. Myers*, *Methanex*,

Lone Pine, and *Vattenfall* cases. In response, defensive provisions were added in the investment chapter of recent PTAs. These provisions include a recognition of the parties' right to exercise discretion with respect to environmental matters (Gagné and Morin 2006). These additions have become common defensive provisions in recent PTAs.

Since the early 2000s, the average number of offensive provisions per PTA has grown even more rapidly than the number of defensive provisions (see Figure 14.2). Rather than treating environmental protection as merely an exception to trade commitments, an increasing number of states use PTAs as instruments for diffusing their environmental standards to other countries (Poletti and Sicurelli 2016; Morin and Rochette 2017; Cima 2018). Recent PTAs typically include a full-length chapter entirely devoted to environmental protection and full of offensive provisions. Some of these offensive provisions, such as those on whaling or the prevention of water pollution, have little trade implications but can contribute to addressing environmental challenges. The fact that there are ever more numerous and diverse offensive provisions suggests that PTAs have become a vehicle to negotiate a wide range of environmental commitments.

In principle, offensive provisions are more difficult to negotiate than defensive ones as they are typically more specific and prescriptive and often concern extraterritorial questions. By definition, they restrict rather than protect regulatory sovereignty. Nevertheless, PTAs provide a relatively favourable vehicle to negotiate offensive environmental commitments. Whereas multilateral environmental negotiations have often proved to be labourious and led to disappointing outcomes, PTAs have at least three features that facilitate the negotiation of offensive provisions. First, PTA negotiations involve just a limited number of like-minded partners. Second, PTA negotiations cover a wide range of issues that open the door for bargaining over trade-offs across issue areas. Third, PTAs offer opportunities for regulatory experimentation since several of them are concluded every year. These characteristics make PTAs a relatively favourable vector for the negotiation of offensive provisions compared to multilateral environmental negotiations.

Some offensive provisions of PTAs are more precise than similar provisions found in multilateral environmental agreements. The 2008 PTA between the US and Peru, for example, includes an eight-page-long annex entirely devoted to forest governance (Jinnah and Morin 2020). It includes prescriptive provisions regarding criminal penalties, inventories, export quotas, producers' audit, and chain of custody. This annex resulted from a US offensive strategy to change Peruvian norms and practices, deemed insufficient by the US government. The US–Peru agreement also includes a side letter on biodiversity and traditional knowledge, which reflects primarily the offensive interests of Peru. In it, the US government acknowledges the principles of prior informed consent and benefit sharing, which is a significant achievement for Peru, considering that the US remains one of the two states (alongside the Vatican) that has not ratified the Convention on Biological

Diversity (Morin and Gauquelin 2016). From this perspective, both the US and Peru successfully included unprecedented offensive provisions in their shared PTA.

14.2.2 *Generic and Specific Provisions*

The second dimension differentiates between generic and specific provisions. Generic provisions are applicable to any environmental issue. Specific provisions address particular issue areas.

The first generation of PTAs included only generic provisions. These early generic provisions included commitments to cooperate on environmental matters, provisions on environmental aid and assistance, the requirement to consider scientific evidence in environmental policymaking, and the acknowledgement that lowering environmental standards to attract foreign investment is inappropriate.

The average number of specific provisions has increased over time. Recent PTAs cover issues as diverse as fisheries, deforestation, toxic wastes, the ozone layer, migratory species, endocrine-disrupting chemicals, soil erosion, wetlands, invasive species, scenery preservation, mercury, heavy metals, and genetically modified organisms. European Union (EU) PTAs were among the first to address specific environmental issues, which varied according to the concerned partner. By contrast, the first generations of US PTAs included almost exclusively generic provisions, including in environmental side agreements that complemented some of these PTAs. Starting with the US–Peru agreement, however, recent US PTAs also include specific provisions, notably on issues such as energy, endangered species, forestry, and fisheries.

The most prevalent environmental issue areas in PTAs are waste, biodiversity, and water. Environmental provisions that focus on these issue areas frequently appear both in North–South and South–South PTAs. In recent years, PTAs have increasingly addressed climate change (Morin and Jinnah 2018; WTO 2022). The first PTA to mention the 'greenhouse effect' was the 1989 Lomé IV Agreement concluded between the European Economic Community and African, Caribbean, and Pacific countries, three years before the United Nations Framework Convention on Climate Change (UNFCCC) was concluded. Since then, an increasing number of PTAs have addressed climate adaptation, promoted renewable energy, favoured the harmonisation of climate regulations, or called for the ratification of climate treaties (see Figure 14.3). Yet, there are still many PTAs with detailed environmental chapters that do not address climate change specifically, or only do so superficially.

Considering the proliferation of issue-specific EPs in PTAs, it is surprising that so few PTAs address climate change directly. There are several possible reasons for this hesitancy. Arguably, countries are reluctant to include strong climate provisions in PTAs for the same reasons they are reluctant to accept them in multilateral forums: the costs of reducing GHG emissions are high and largely borne by politically influential actors, such as oil companies and their shareholders (Colgan et al. 2021). If more PTAs address biodiversity than climate change, it might be because

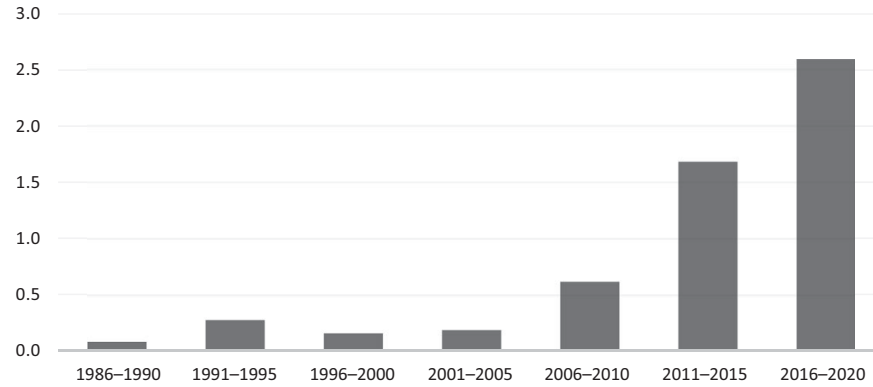

FIGURE 14.3 Average number of climate-related provisions in PTAs.
Source: authors' elaboration (based on Brandi and Morin 2023)

the costs of biodiversity conservation are largely borne by poorer countries. It is also possible that for biodiversity-rich countries, the benefits of market access outweigh the costs of conservation. Because trade negotiations tend to value utility in short-term economic gains, it is unlikely that the costs of climate mitigation would meet this bar (Morin and Jinnah 2018).

That said, several generic EPs that are not specifically related to climate change could nevertheless be useful in addressing it. For instance, environmental exceptions in the investment chapter could allow states to adopt the necessary measures for a clean energy transition. Another example is provisions on technical assistance and capacity building that can play an important role in the implementation of PTAs with climate-related provisions. As more diverse economies move into more leadership roles on climate change, it will be interesting to see if and how they incorporate climate issues into their future trade agreements.

14.2.3 *A Typology*

Combining the two dimensions introduced above results in a 2x2 typology. Environmental provisions in PTAs can be specific/offensive, generic/offensive, specific/defensive, generic/defensive. Table 14.1 presents a few examples for each of these four types. In the following paragraphs, we briefly discuss one example for each type (as underlined in Table 14.1).

An example of *specific/offensive* provisions is restrictions on fossil fuel subsidies. Such provisions focus on the specific issue of climate change (as opposed to environmental protection in general) and proscribe certain policies (instead of protecting regulatory sovereignty). Governments have made numerous voluntary commitments to phase out inefficient fossil fuel subsidies (including in the context of the G20, G7, Sustainable Development Goals (SDGs), UNFCCC, and Asia-

TABLE 14.1 *Typology of climate-related provisions.*

	Climate-specific provisions	Generic provisions
Offensive provisions	• Restrictions on fossil fuel subsidies • Requirement to ratify the Paris Agreement • Promotion of energy efficiency • Adopt/harmonise climate regulations	• Liberalisation of environmental goods and services • Requirement to provide environmental aid • Requirement to conduct impact assessments
Defensive provisions	• Exceptions allowing border carbon adjustment measures	• Environmental exceptions to the investment chapter • Certified goods are not similar to non-certified goods

Pacific Economic Cooperation (APEC)). Still, fossil fuel subsidies amounted to a staggering USD 697.2 billion in 2021 (OECD and IEA 2022), leading to a range of adverse environmental and socio-economic effects, including on climate change and air pollution (Skovgaard and van Asselt 2019). Fossil fuel subsidies do not only lead to GHG emissions and carbon lock-in, but they also distort international trade (Moerenhout and Irschlinger 2020). As a consequence, fossil fuel subsidy reform has also been discussed in the trade context, with several World Trade Organization (WTO) Members (including the EU) adopting a Ministerial Statement in 2021, in which they expressed their intention to 'advance discussion … aimed at achieving ambitious and effective disciplines' (WTO 2021: paragraph 8).

Although no multilateral rules on fossil fuel subsidies exist, a few PTAs have begun to include provisions on fossil fuel subsidies. In the 2018 agreement between the EU and Singapore, the parties 'recognise the need to ensure that, when developing public support systems for fossil fuels, proper account is taken of the need to reduce greenhouse gas emissions and of the need to limit distortions of trade as much as possible'. They also 'share the goal of progressively reducing subsidies for fossil fuels' (Article 12.11(3)). This vague formulation is not enforceable under the dispute settlement mechanism of the agreement. For its part, the 2021 agreement between the United Kingdom (UK), Iceland, Liechtenstein, and Norway provides that parties should cooperate on the 'global phase-out of inefficient fossil fuel subsidies' (Article 13.22(3)(h)). Similarly, the 2021 agreement between the EU and the Organisation of African, Caribbean and Pacific States provides that 'they shall phase out environmentally harmful fossil fuel subsidies' (Article 24.3). One of the most detailed provisions on fossil fuel subsidies in a PTA can be found in the 2022 UK–New Zealand Agreement, in which the parties commit to, among others, 'take steps to eliminate harmful fossil fuel subsidies where they exist, with limited exceptions in support of legitimate public policy objectives', 'ensure that information on fossil fuel support measures, including any subsidies, is published', and 'encourage

non-parties to develop and undertake best practice approaches to fossil fuel subsidy reform' (Article 22.8). New Zealand is also involved in negotiating a new Agreement on Climate Change, Trade and Sustainability (ACCTS) with Costa Rica, Fiji, Iceland, Norway, and Switzerland, with the stated aim of developing new rules restricting fossil fuel subsidies.

An interesting example of *generic/offensive* provisions is commitments to liberalise environmental goods and services (EGS). While these commitments do not directly address climate change, they can greatly contribute to the diffusion of climate technologies, such as solar panels and wind turbines, making the uptake of these technologies cheaper and faster. More than seventy PTAs mention the benefits of liberalising EGS, but few of them include clear commitments in this regard. In most of the cases, these provisions are formulated in best endeavour language, where parties only 'recognise the importance' (USMCA 2019), 'resolve to make efforts' (CARIFORUM 2008), 'strive to facilitate' (European Free Trade Association (EFTA)–Turkey 2018), or 'pay special attention' (Comprehensive Economic and Trade Agreement (CETA) 2016) to the liberalisation of EGS. One of the most precise PTAs in relation to EGS is the 2013 agreement between New Zealand and Taiwan. It covers the elimination of all tariffs on 132 environmental goods immediately upon the entry into force of the agreement, as well as the movement of business persons involved in the supply of environmental services. The 2022 New Zealand–UK PTA goes even further by eliminating tariffs on 293 environmental goods, which is the largest list agreed upon in any PTA to date.[1]

While the proliferation of PTAs automatically contributes to the removal of tariffs on environmental goods, this is not enough, given that applied tariffs are relatively low (particularly in advanced economies) in multilateral (most-favoured-nation) trade, whereas non-tariff barriers (NTBs) are the main obstacle. Countries, therefore, attempt to address the issue of NTBs in PTAs as well.[2] Most common in this respect are provisions addressing technical barriers to trade (TBT), including the mutual recognition of technical regulations, standards, and conformity assessment procedures for the production, processing, or labelling of organic products (Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) 2018). Some PTAs also include provisions for the promotion of good regulatory practices in standard-setting. Particularly, they oblige the parties to use standards of specific international standard-setting bodies listed in the agreements when introducing domestic standards for specific environmental goods (EU–Singapore 2018; EU–Viet Nam 2019). Moreover, the EU strives to include in its PTAs provisions that commit parties to refrain from the use of local content

[1] These lists are living documents in that they can be adjusted to include new information about environmental goods and technologies.

[2] In the 2013 New Zealand–Taiwan PTA, parties agreed to endeavour to address any NTB identified by either party that impedes trade in environmental goods or services.

requirements or any other performance requirements that negatively influence the other party's products and services relevant for the promotion of renewable energy (EU–Singapore 2018; EU–Viet Nam 2019).

Some PTAs also contain commitments on environmental services that go beyond existing commitments in the General Agreement on Trade in Services (GATS). These 'GATS-plus' commitments in PTAs extend to all four environmental services' subsectors (6.A sewage, 6.B refuse disposal, 6.C sanitation, and 6.D other) and enhance market access and national treatment obligations. In some cases, liberalisation also concerns mode 4, which facilitates the movement of business persons for the sale and installation of environmental goods or the supply of environmental services (New Zealand–Taiwan 2013). Moreover, there are specific provisions in some PTAs on strengthening technology transfer and capacity building in the field of environment and sustainable development by means of grants, development funds, or other financial instruments.[3]

Environmental exceptions to commitments with respect to investment protection are examples of the *generic/defensive* type (Gagné and Morin 2006). They include general exceptions giving the host state the possibility to lawfully take action directed at environmental protection (112 PTAs), clarifications that regulatory action designed to protect the environment does not constitute indirect expropriation (64 PTAs), the explicit granting of the right to regulate investment in specific sectors (47 PTAs), and the exclusion of environmental measures from the scope of investor–state dispute settlement (ISDS) (six PTAs).

General exceptions applicable to commitments with respect to investment are incorporated *mutatis mutandis* or copied (sometimes with slight modifications) from the texts of the general exceptions of GATT Article XX and GATS Article XIV. They can be found in different parts of PTAs, including investment chapters (Japan–Singapore 2002; EFTA–Indonesia 2018) and chapters specifically dedicated to exceptions (New Zealand–China 2008; CETA 2016). While normally applying to provisions of the whole treaty, in some PTAs, general exceptions apply only to specific investment protection standards, which substantially limits the host state's flexibility to take environmental measures. For instance, in the EU–Canada CETA, general exceptions apply only to two subsections of the investment chapter – establishment of investment and non-discriminatory treatment. In this case, the risk of violation by the host state of other investment-related provisions, such as unlawful expropriation and fair and equitable treatment (FET), linked to the application of environmental measures is not mitigated through the general exceptions. Instead, possible violations are precluded by means of the interpretive language delimiting the scopes of application of these provisions (Sabanogullari 2015). For instance, in relation to indirect expropriation, one of the CETA provisions contained in Annex 8A stipulates that 'except in the rare circumstance when the impact of a measure . . .

[3] See, for example, Chapter 9 on cooperation and capacity building of the 2019 EFTA–Indonesia PTA.

appears manifestly excessive, non-discriminatory measures of a Party that are designed and applied to protect legitimate public welfare objectives, such as health, safety and the environment, do not constitute indirect expropriations' (Annex 8A.3). Several PTAs incorporate similar language.

Moreover, some PTAs reaffirm the right of the host state to regulate. This is done either as a reference to the right in the preamble of a PTA (New Zealand–UK 2022), which, while not creating real rights for states, can play an important role in treaty interpretation by arbitrators, or as a provision in the investment chapter. For instance, Article 8.9 of CETA contains the explicit recognition of the right of each party 'to regulate in their territories to achieve legitimate policy objectives such as the protection of public health, safety, the environment' and explains that 'the mere fact that a Party regulates . . . in a manner which negatively affects an investment or interferes with an investor's expectations . . . does not amount to a breach of an obligation'. At the same time, provisions that carve out non-discriminatory measures with legitimate public policy objectives from ISDS claims (Colombia–Panama 2013; Australia–China 2015) are less common but very significant from the perspective of climate action, as they help to shield domestic climate policy measures.

Provisions that specifically allow for border carbon adjustment (BCA) would be examples of *specific/defensive* provisions. The idea of achieving more ambitious climate policy targets without energy-intensive sectors shifting their emissions abroad (carbon leakage) through imposing BCAs is no longer theoretical. In 2023, the EU introduced a carbon border adjustment mechanism (CBAM) to charge imported goods according to the CO_2 emitted during their production. While the CBAM is the first time such a measure is adopted, it will unlikely be the last, given that countries are implementing domestic climate policies at different speeds and with varying levels of ambition. Key questions in this context include how BCAs can be made compatible with international trade law and how cooperation and dialogue on issues such as pricing carbon and on carbon leakage can be furthered in light of the increasingly fragmented landscape at this interface of trade and climate policies.

At the moment, PTAs do not include specific/defensive provisions on BCAs. States have to rely on generic/defensive provisions, such as environmental exceptions that allow countries to restrict trade to protect human, animal, or plant life or health (311 PTAs), or conserve natural resources (386 PTAs), similar to those contained in the GATT (Article XX(b) and (g)). Some of these exceptions in PTAs are 'WTO-plus', as they provide useful clarifications on the scope of the exceptions clarifying that, for instance, GATT Article XX (g) covers the conservation of both living and non-living exhaustible natural resources.[4] The importance of

[4] For instance, the 2022 New Zealand–UK PTA states that the measures referred to in GATT Article XX(b) of and GATS Article XIV(b) of GATS include environmental measures necessary to protect human, animal, or plant life or health and measures necessary to mitigate climate change. Moreover, it specifies that Article XX(g) of GATT 1994 applies to measures relating to the conservation of living and non-living exhaustible natural resources, whereby 'non-living

clarifications of the GATT general exceptions becomes evident from the analysis of environment-related WTO jurisprudence, especially the gasoline and shrimp–turtle cases. These clarifications improve the chances of successfully defending a BCA measure in case of a dispute.

Other provisions relevant to BCAs include those on the promotion and cooperation of carbon markets.[5] These provisions address the challenge of fragmented domestic climate action at different speeds and different levels of ambition around the world. The 2020 PTA between the EU and the UK contains a separate article on carbon pricing obliging the parties to have in place an effective carbon pricing system embracing GHG emissions from electricity and heat generation, industry, and aviation. The parties also agreed 'to give serious consideration to linking their respective carbon pricing systems in a way that preserves the integrity of these systems and provides for the possibility to increase their effectiveness'.[6] Similarly, the 2022 UK–New Zealand Agreement contains a provision promoting carbon pricing as an effective policy tool for reducing GHG emissions, and a provision on cooperation on trade-related measures of climate policy, including those related to linking emissions trading systems and carbon leakage. The latter provision is closely related to the use of BCAs.

Another set of BCA-relevant provisions aims at facilitating dialogue on measures taken to comply with multilateral environmental agreements, such as the Paris Agreement, thus potentially also covering the use of trade measures, such as BCA. For example, Article 16.3.3 of the 2015 Korea–New Zealand Agreement states that '[i]n the event a Party proposes to take a measure to comply with its obligations under a multilateral environmental agreement that may directly and adversely affect the other Party's trade or investment, either Party may seek to engage in dialogue to resolve the matter'.

In the next part, we lay out options for the future that have the potential to strengthen climate protection via PTAs, focusing on these four types of provisions.

14.3 DESIGNING BETTER CLIMATE-RELATED PROVISIONS

14.3.1 *Fossil Fuel Subsidies*

With a few countries beginning to include provisions on fossil fuel subsidies in their PTAs, and new rules under negotiation in the ACCTS context (and, possibly in

exhaustible natural resources' include clean air and a global atmosphere with safe levels of greenhouse gases.

[5] For instance, the 2015 South Korea–New Zealand Agreement focuses on 'co-operation on trade related aspects of the current and future international climate change regime, including issues relating to global carbon markets and ways to address adverse effects of trade on climate' (Annex 16-A). The 2019 EU–Viet Nam PTA agreed to exchange information and experience on designing, implementing, and operating mechanisms for pricing carbon (Article 13.6, para 2(a)).

[6] See the 2020 Trade and Cooperation Agreement between the EU and the UK (2020), Article 392(6).

future, in the WTO context), the question arises of how trade negotiators can design such provisions in a way that can effectively (and fairly) contribute to climate protection. This question can be discussed with reference to: (1) the scope of the provisions, (2) the type of discipline, (3) provisions for special and differential treatment (SDT), and (4) procedural aspects (including notifications). These points will be discussed in turn.

In terms of the scope, there are ways to craft provisions that make them more specific. It is not difficult to think about vague and broad formulations. For instance, following the language of the voluntary G20 commitment (G20 2009), the scope could be limited to 'inefficient' fossil fuel subsidies that 'encourage wasteful consumption'. As there is no agreement on what these terms mean (OECD and IEA 2022), adding these qualifiers would make the scope of a provision less clear. Even without these terms, however, questions remain over what constitutes a 'fossil fuel subsidy', with different definitions being used in different contexts. For instance, the International Monetary Fund includes the non-internalisation of negative social and environmental externalities in its definition, leading to estimates that are an order of magnitude greater than the more conservative estimates by the Organisation for Economic Co-operation and Development (OECD) and the International Energy Agency (Parry et al. 2021).

To clarify the scope, negotiating parties can consider three options. First, they can adopt a standard definition of a 'subsidy', with the definition of Article 1 of the WTO Agreement on Subsidies and Countervailing Measures (SCM Agreement) being a prime candidate. They would also need to clearly define 'fossil fuels', for instance, following the definition put forward by the United Nations Environment Programme to help measure progress towards the SDGs (UNEP and IISD 2019). By doing so, the parties could decide only to cover fossil fuel subsidies that are 'specific' within the meaning of the SCM Agreement, they could omit the specificity requirement, leading to a broader coverage (including non-specific subsidies such as fixed fuel prices), or they could adopt an alternative specificity requirement. Second, rather than agreeing on a definition, parties could list specific types of targeted subsidies, such as those known to be particularly environmentally harmful (e.g. subsidies for new coal mines). Third, parties can alternatively self-select which subsidies they intend to subject to disciplines. Such discretion would, however, run the risk of no or only limited subsidies being put forward by parties.

In terms of the type of discipline, the provisions could include a prohibition of either all or a subset of fossil fuel subsidies, following the model of prohibited subsidies under the SCM Agreement and the 2022 WTO Agreement on Fisheries Subsidies. Likewise, following the example of the SCM Agreement's category of actionable subsidies, disciplines could be related to the assessment of the environmentally harmful effects of subsidies (e.g. on GHG emissions). However, establishing a causal link between an individual subsidy and specific environmental effects may be challenging (though not impossible; see Achakulwisut et al. 2021). Subsidy

disciplines could also follow the model of the WTO Agreement on Agriculture by requiring the phasing down or out of fossil fuel subsidies over a given time period. This approach requires that parties have a good understanding – and agreement – of the overall size of fossil fuel subsidies, which would serve as the basis for reduction commitments. Another approach, discussed in the APEC context, is for countries to agree on a 'stand-still' obligation, under which they agree to not introduce any new fossil fuel subsidies.

Depending on the negotiating parties, the rules developed in a PTA could seek to accommodate SDT for developing countries. The rationale for such provisions would be the challenges faced by developing countries in shifting away from fossil fuel dependence. Such SDT could be applied to any developing country party in a PTA, or only to least developed countries. Provisions could be in the form of a (temporary) derogation from key disciplines, for instance, for fossil fuel subsidies provided to ensure energy access for the most vulnerable and poorest. Moreover, provisions could be put in place providing for technical and/or financial assistance and technology transfer to support the clean energy transition in developing countries.

Lastly, PTA parties could strengthen transparency around fossil fuel subsidies by providing for the notification of such subsidies by parties, counter-notification by other parties, or third-party notification by international organisations, thereby addressing one of the core challenges surrounding fossil fuel subsidies: a lack of transparency (Casier et al. 2014). Another model, building on the G20 and APEC experience, would be for countries to regularly report on their fossil fuel subsidies and progress made in their phase-out, with those reports being subject to a peer review by other parties. Depending on the type of disciplines and the placement of provisions on fossil fuel subsidies, they may also be subject to dispute settlement, allowing countries to challenge each other's inconsistent fossil fuel subsidies.

14.3.2 *Environmental Goods and Services*

Preferential trade agreement negotiations offer an alternative channel for promoting trade in EGS, in view of the failed multilateral and plurilateral negotiations on the liberalisation of trade in EGS.[7] The potential of PTAs to promote trade in EGS is underlined by the above-mentioned examples of the inclusion of lists of environmental goods for tariff elimination in PTAs. A major drawback of these PTA provisions setting commitments to eliminate tariffs on specific environmental goods

[7] An important step was made in 2012 when the twenty-one APEC Members agreed to reduce tariffs for a list of fifty-four environmental goods (Bellmann and Sugathan 2022; de Melo and Solleder 2022). Since then, however, momentum was lost. In 2016, the forty-six Members that were negotiating the Environmental Goods Agreement at the WTO put these negotiations on hold. At the same time, there is renewed discussion in the WTO on how governments can cooperate to promote trade in EGS.

is their lack of binding character. These provisions are part of chapters devoted to trade and sustainable development (TSD) or environmental protection, which are often not subject to dispute settlement under the agreements. To increase compliance with these provisions, they would need to be included in the chapters on trade in goods and services, to which dispute settlement provisions apply. Alternatively, PTA parties may consider the application of a PTA's general dispute settlement rules with remedies for non-compliance (including suspension of concessions) to the environmental or TSD chapter.[8] In fact, a move towards such a reform is currently underway in the EU. In 2022, the EU Commission announced that it wants to extend the PTA's general state-to-state dispute settlement mechanisms to their TSD chapters.[9]

A list-based approach to the liberalisation of environmental goods can also be supplemented with a preferential tariff rate approach following the example of the 2019 PTA between the EFTA (consisting of Iceland, Liechtenstein, Norway, Switzerland) and Indonesia. This agreement establishes preferential tariff-rate quota access for palm oil produced sustainably in Indonesia. Under this approach, countries may consider the introduction of sustainability criteria for tariff elimination or reduction (including within tariff quotas) under their PTAs. These sustainability criteria may favour certain low-carbon technologies for the production of specific goods and would incentivise producers from PTA partners to switch to production methods that are more climate-friendly. It would particularly work for goods with bound tariffs that are high enough to allow for differentiation at a scale sufficient to create an incentive for producers to convert to greener technologies.

Given that non-tariff measures (NTMs) present a major problem for EGS, it is especially important to focus in PTAs on the reduction of NTMs. Addressing NTMs cannot be effective without reducing the use of antidumping (AD) and countervailing duties (CVD), which undermines the elimination of tariffs. In many cases, AD and CVD imposed on imports of solar panels and wind turbines constitute 100 per cent of the value of the imported products (WTO 2022). Tackling the problem of trade remedies requires negotiating rules additional to those found in the WTO SCM Agreement. For example, PTAs can include mandatory public interest clauses that would oblige investigating authorities to consider the interests of different stakeholders and environmental externalities in the imposition of trade remedies (Espa and Marín Durán 2020). This would balance the benefits of trade remedies to the domestic industry against the costs for other economic operators and broader public policy objectives, including climate protection, thereby avoiding the imposition of AD and CVD harmful for the deployment of green technologies.

[8] There is a risk, however, that the extension of general dispute settlement to environmental provisions will result in a non-binding best endeavour language of environmental provisions (i.e. a higher degree of delegation will be achieved at the expense of obligation and precision). This remains a debated question.

[9] See https://ec.europa.eu/commission/presscorner/detail/en/ip_22_3921.

Environmental standards that are not harmonised or based on inadequate methodologies also constitute trade barriers for EGS. Preferential trade agreements provide the opportunity to negotiate the introduction and harmonisation of sound standards and certification schemes for particular environmental goods (Holzer and Cottier 2015). It is particularly in the interest of developing countries to join discussions to regulate standards and sustainability criteria, as they tend to face challenges with standard compliance. Promoting good regulatory practices and providing technical and financial assistance to developing countries and their producers to support compliance with TBT measures, as well as to ensure a well-functioning domestic quality infrastructure system, should therefore be part of PTA negotiations.

Another important driver of the diffusion of low-carbon or other environmental technologies is trade in environmental services. Inasmuch as environmental services are essential for the effective use of environmental goods, the potential benefits of simultaneously liberalising trade in environmental services and in environmental goods are much greater than liberalising trade in only one or the other. Future PTA negotiations should therefore seek to enable better trade in environmental services. Yet, this is a challenging task for at least two reasons. First, the liberalisation of environmental services is constrained by the natural monopoly character of many environmental services' provisions (sewage, waste disposal, etc.). Second, services negotiations usually follow different modalities than goods negotiations, which makes it even more difficult to agree on definitional and technical issues. However, negotiating environmental services in PTAs can make an agreement easier, especially with partners from developing countries where the supply of high-quality environmental services presents an acute problem. Practical approaches to the liberalisation of environmental services under PTAs include facilitating trade in services directly related to specific environmental goods and using 'ex-outs', or additional descriptions, within the service categories under the Central Product Classification to identify specific services relevant to the environment (Bellmann and Sugathan 2022).

Finally, as the experience at the WTO shows, negotiations on the liberalisation of trade in environmental goods can be facilitated by allowing for certain flexibilities for developing country parties. These flexibilities may include lower levels of tariff cuts for developing country parties, or cuts on fewer goods and over a longer time period, or different levels of liberalisation for different categories of environmental goods. In addition, there could be provisions on technology transfer and technical assistance that impact EGS production and export to make sure that developing countries can also derive substantial benefits from promoting trade in EGS via PTAs.

14.3.3 *Investment*

There is much discussion about how to improve the climate-friendliness of international investment agreements (IIAs), including PTAs, bilateral investment treaties

(BITs), and sectoral agreements such as the Energy Charter Treaty (ECT). Most active discussions revolve around the need to put restrictions on the application of ISDS to foreign investor claims regarding measures taken by governments to address climate change, or, conversely, creating more regulatory space for governments to protect the environment and the climate. The availability of ISDS results in multiple claims by investors against climate policy measures, potentially inflicting major losses on state budgets as a result of paid damages. Many analysts believe that this risk has a 'chilling effect' on climate policy measures (Tienhaara 2018). In this sense, general exceptions for public policy measures are likely to be a less effective safeguard of the host state's regulatory space compared to more precisely calibrated carve-outs, especially in areas where the potential for ISDS claims is high. Scepticism about general exceptions is based on the arguments that these exceptions will not provide more regulatory flexibility than what is already available in customary law or jurisprudence (Newcombe 2011). On the contrary, they may even limit existing flexibility due to their exhaustive lists of permissible objectives and allegedly overly rigid requirements (Gehring and Tokas 2022). Based on these discussions, several reform options regarding exceptions and carve-outs can be suggested in support of climate policy.

As a first option, PTA parties can develop a treaty-wide exception specifically for climate policy measures. To this end, general exceptions need to be updated and refined to make clear that they apply to measures taken with a climate protection objective. A specific reference in the exceptions to climate change is important because it is not entirely clear whether public policy exceptions modelled after the GATT and GATS general exceptions will necessarily be interpreted to cover measures addressing climate change. It is also important to ensure that taking climate policy-related measures is not only lawful but does not entail any compensation. This would avoid a situation like in *Eco Oro v. Colombia*, where the tribunal reached the conclusion that states remained liable to pay compensation for legitimate, non-discriminatory measures falling within the scope of the treaty's general environmental exception. To prevent similar findings, clarification can be added to the exception that no compensation needs to be paid for the application of climate policy measures falling under the exception.

Second, in addition, and in line with the first option, the right to regulate could be explicitly extended to climate policy measures, as foreseen in the 2021 Canadian Model BIT. To this end, the right to regulate in the investment chapter needs to be linked to a specific aim of addressing climate change. Moreover, parties to PTAs can go further and explicitly allow measures to be taken to implement their Paris Agreement commitments, following the example of the TSD chapter of the 2018 EU–Japan Economic Partnership Agreement.[10]

[10] See Article 16.4 and 16.5 of the EU–Japan Agreement.

Third, better use could be made of carve-outs and clarifications concerning the application of investment protection standards to climate policy measures (Polanco et al. 2017). Carve-outs from certain investment protection standards, such as non-discrimination and performance requirements, can be made for specific climate policy measures, such as subsidy schemes for renewable energy and government procurement. Investment provisions can also include a presumption of conformity of climate measures with indirect expropriation provisions. Additional provisions can provide clarifications and guidance to arbitrators on how to decide whether or not a government measure constitutes a violation of FET, which can also be supplemented with a closed list of measures that constitute a breach of FET.[11] Refining the host state commitments by clarifying and limiting the scope of any investment protection standard that could put climate protection goals at risk arguably offers a more systemic approach for climate policy-driven reform of the investment treaty regime than general exceptions or issue-by-issue carve-outs for climate policy measures (UNCTAD and IIED 2022).

Finally, climate policy measures can be protected from legal challenges through a carve-out from ISDS. In that case, climate policy measures would still be covered by the obligations under PTAs (and could potentially be in breach of those obligations), but the carve-out from ISDS would eliminate the risk of a successful challenge and award of damages to an investor (Paine 2022). A carve-out from ISDS for climate policy measures or for investments in the energy sector would enable ample regulatory flexibility necessary to take ambitious climate action. Although this looks like the most effective reform for climate protection purposes, very few existing PTAs include such a carve-out. One of the rare cases includes the 2000 PTA between Mexico and the Northern Triangle, which excludes from ISDS measures adopted by Honduras regarding health, national security, and the protection of the environment.[12] Trade negotiators should consider carve-outs that are less contentious by excluding entire sectors or measures aimed at reducing GHGs.

Successful implementation of the above-mentioned reform options requires a thorough consideration of several cross-cutting issues. The first issue to be considered is whether exceptions and carve-outs would function as defences or permissions. The latter is preferable for climate policy objectives, as it would make a measure fall outside investment protection and place the burden of proof on the investor to demonstrate that the exception does not apply (Henckels 2022). Another important step is to define what measures should be protected by an exception. In other words, how should those measures be circumscribed? Should qualifiers such as 'necessary' or 'relating to' be used, or should the link to climate policy be made rather vague and formulated through the words 'designed and applied to' or 'appropriate to'? The experience with WTO disputes, where the term 'necessary' was

[11] See, for example, CETA Article 8.10.

[12] Mexico–Northern Triangle FTA, Article 14-41 and Annex 14-41.

interpreted as requiring the consideration of alternative, less restrictive measures, suggests a preference for a vaguer connection. Parties can also decide to include a condition that measures must be non-discriminatory to fall under the exception. For example, if domestic investors receive compensation for a climate policy measure that negatively impacts their business, foreign investors should be entitled to it as well. In that case, parties would also need to provide guidance on what is meant by 'non-discriminatory' (Paine 2022). Another important question is who should decide on whether a measure is covered or a subject exempted from ISDS when a dispute is initiated – arbitrators, parties, or an independent body with climate-related expertise. Given the absence of climate policy expertise and the high public interest in the matter, an investor–state arbitration tribunal is unlikely to be an appropriate body to decide. Instead, a climate-related carve-out from ISDS should better be governed by a multilateral body set up within the UNFCCC or by an independent panel of climate change experts (Paine 2022).

14.3.4 *Border Carbon Adjustments*

Preferential trade agreements offer a valuable avenue for negotiations on the use of BCAs. States are likely to be more willing to negotiate on BCAs under PTAs than in the WTO due to the wide coverage of issues that promise to bring economic benefits to PTA parties. This wide coverage offers a large scope for bargaining and trade-offs between economic and climate policy interests. In relation to BCAs, states have so far used PTAs in a defensive mode, primarily relying on environmental exceptions that could shield their prospective BCAs from legal claims of PTA partners. Today, as the use of BCAs has become imminent, countries can be more proactive on the issue of BCAs in their PTA negotiations. They can negotiate offensive provisions laying down rules for the application of BCAs.

If the PTA parties agree on the use of BCAs in their bilateral trade, they can include a provision on a BCA in the environmental or TSD chapter (for instance, in a subchapter on carbon markets, carbon pricing, and BCAs), which will regulate several important aspects essential for the design and implementation of a BCA measure. This provision could oblige the parties to ensure the implementation of a BCA in a transparent and non-discriminatory manner based on prior notification and consultation, fostering cooperation on BCA design and implementation with the other party. It could also require the parties to develop mutually accepted sector-based emission measuring, reporting, and verification systems and carbon footprint certification schemes and ensure a transparent mechanism of crediting for domestic carbon prices in the application of the BCA obligation. The latter option would be useful for a party seeking to reach an agreement on the comparability of climate policy measures for the purposes of the deduction of already paid emission costs from a BCA charge in case of importation. Crediting for domestic climate policies, and providing exemptions in general, is an important feature of BCA design that

affects its legality and acceptance by trading partners (Espa and Holzer 2022). The EU and other countries intending to introduce BCA measures can therefore use their PTAs to negotiate criteria for the exclusion of imports, which paid emission reduction costs or bore the burden of non-pricing climate policy regulations in their countries of origin.

Like in the case of the inclusion of lists of environmental goods, the inclusion of a BCA provision in the environmental or TSD chapters raises the question about the legal bindingness of this provision, considering that these chapters are usually exempted from the application of dispute settlement provisions under PTAs. Yet, the case of BCA is different from the elimination of tariffs for environmental goods, and the non-application of dispute settlement provisions to BCA provisions under a PTA is not critical. Unlike the case of elimination of tariffs for environmental goods, which represents 'WTO-plus' provisions, the BCA provisions constitute 'WTO-minus' obligations, that is, those perceived to contradict certain WTO rules (Cosbey 2022).[13] Therefore, if a PTA party disagrees with the other party on any aspect of the application of a BCA in the implementation stage, it is likely to take the case straight to the WTO dispute settlement rather than adjudicate the issue under the PTA.

That said, PTA negotiations can still be useful for settling issues around the implementation of BCAs. In fact, dealing with BCAs under PTAs has a number of distinct advantages (Holzer and Shariff 2012). While PTA parties can still bring a legal claim against a BCA at the WTO, dealing with BCAs under PTAs would mitigate, to some extent, the risk of a legal challenge, as BCAs would be applied on conditions previously agreed upon among PTA parties.[14] Negotiations on BCAs under PTAs might also avoid trade retaliations because PTAs may provide a useful forum for negotiations with the largest trading partners. It can be useful to discuss the application of a BCA in PTA forums with the largest trading partners, even in a situation where the BCA is not applied in a bilateral agreement. Even where a BCA is applied in trade with all trading partners, it is the largest trading partners that are likely to have the greatest objection to the measure. Discussing the application of a BCA under a PTA could enable the state imposing the BCA to work out the design details to the satisfaction of its largest trading partner and potentially offer concessions to elicit acceptance of the BCA (Holzer and Shariff 2012). While this does not eliminate the risk of a legal challenge, it may substantially reduce it. Last but not

[13] It should be noted that legal hurdles to the implementation of BCAs would remain even in the case of implementation through PTAs because except for the allowed derogation of the most-favoured-nation principle, all other WTO rules regulating the application of BCAs are supposed to be followed (Holzer and Shariff 2012).

[14] The parties could even agree to refrain from using the WTO dispute settlement mechanism for BCAs that comply with certain conditions. While this PTA commitment might not have strong legal currency at the WTO, it would have political value.

least, such negotiations on a BCA under a PTA may also encourage the other party or parties to impose more stringent climate policies of their own.

14.4 CONCLUSION

Preferential trade agreements offer the opportunity to experiment on a limited scale with innovative ways to use trade policies to tackle environmental challenges. Several PTAs are concluded every year, and many of them introduce small variations to established templates. As a result, recent PTAs include an ever-increasing number of EPs.

Some of these experiments might prove disappointing or lead to unintended consequences. Others, however, might accelerate our transition towards greener economies. They can help protect states' regulatory capacity, incentivise ecological transition, and favour the diffusion of green technologies. Hopefully, these successful experiments are replicated in other PTAs and inspire multilateral negotiations at the WTO. The CPTPP, for example, already contained fisheries subsidies rules a few years before the Agreement on Fisheries Subsidies was concluded at the WTO.

At the same time, EPs in PTAs have not been designed in a way that lives up to their full potential. Many of them remain vague, weak, and not very innovative. This is particularly the case for EPs that address climate change. They are less frequent and less precise than provisions related to biodiversity. Where they exist, they are often excluded from the main dispute settlement mechanism and left without any monitoring system, such as stakeholder committees or periodic ex post impact assessment.

In light of the urgency to tackle the climate crisis, it is important to unlock the full potential of PTAs for climate governance. This chapter has shown how this could be done for four types of EPs: provisions on fossil fuel subsidies, EGS, environmental exceptions to investment protection rules, and exceptions for BCAs. We have identified clear options for more ambitious and enforceable provisions in each of these four types. In many cases, these provisions would help mitigate climate change without creating additional trade distortion. Looking ahead, this untapped potential of PTAs for climate governance should be leveraged much more strongly.

Introducing ambitious EPs in PTAs would not only enable trade negotiators to learn how to design greener trade agreements, but also create political and economic conditions for their widespread adoption. Ambitious EPs can strengthen environmental industries, weaken the influence of polluting firms, and create new benchmarks for future trade negotiations. Trade governance is a complex system with multiple self-reinforcing feedback loops (Morin et al. 2017; Morin and Gomez-Mera 2019). The key is to reach as soon as possible the tipping point when this system will really help accelerate our transition towards sustainability. It is crucial to reach this tipping point in the trade governance system before the Earth system reaches its own critical thresholds leading to large-scale new self-reinforcing dynamics.

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