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TYPOLOGY OF ENVIRONMENT-RELATED PROVISIONS IN REGIONAL TRADE AGREEMENTS

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ABSTRACT: The last 25 years have witnessed a rapid increase in regional trade agreements (RTAs). Although RTAs generally aim at lowering tariff and non-tariff trade barriers, an increasing number of trade agreements extend their scope to cover specific policy areas such as environmental protection and sustainable development. This paper establishes a comprehensive typology and quantitative analysis of environment-related provisions included in RTAs. The analysis covers all the RTAs currently into force that have been notified to the WTO between 1957 and May 2016, namely 270 trade agreements. While environmental exceptions, along with environmental cooperation continue to be the most common types of environment-related provisions, many other different types of provisions are incorporated in an increasing number of RTAs. The common feature of all environment-related provisions, including environmental exceptions, is their heterogeneity in terms of structure, language and scope.

KEYWORDS: Regional Trade Agreements, Environment, Sustainable Development.
JEL CLASSIFICATIONS: F13, F18

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1 INTRODUCTION

An important part of the debate about globalization and sustainable development revolves around the question of how to ensure that trade liberalization and environmental protection are mutually supportive. The last 25 years have witnessed a rapid increase in regional trade agreements (RTAs) in terms of number but also regulatory coverage.[2] In particular, explicit reference to sustainable development and environmental issues and policies has been included into an increasing number of RTAs. The inclusion of these environment-related provisions in RTAs follows a dynamic process, which has evolved and expanded over the years. As a result, these environment-related provisions incorporated in RTAs differ substantially in terms of location in the agreement, language, scope and depth, as well as legal and institutional implications, making the analysis even more complex.

Although a limited number of studies present an overview of the various approaches adopted to address environmental issues in specific RTAs[3], none of them provide a quantitative analysis of the scope and depth of the broad range of environment-related provisions incorporated in RTAs. This study is the first to quantitatively map, in a consistent manner, the environment-related provisions included in 270 RTAs notified to the WTO between 1956 and May 2016.

Certain environment-related provisions included in RTAs do not differ significantly from the provisions of the WTO Agreements with direct relevance to the environment. In fact, the most common type of environment-related provisions, which can be found in 262 RTAs is an environmental exception, similar to the general exceptions of Article XX of the General Agreement on Tariffs and Trade (GATT-1994) or Article XIV of the General Agreement on Trade in Services (GATS). Several other environment-related provisions found in RTAs are built on commitments and issues already agreed or being discussed in the WTO, such as the recognition of the right to adopt measures for the protection of the environment. Finally, a large number of , more recent, environmental-related provisions differ markedly from WTO Agreements by covering environmental issues that go beyond the current WTO mandate, such as environmental governance.

The type and number of environment-related provisions included in RTAs depends on the parties involved in the trade agreement, suggesting that incorporating environment-related provisions in RTAs remains controversial among countries. A country may agree to incorporate environmental provisions in a RTA with another country but may decide not to replicate such provisions in a RTA negotiated with other trading partners.

RTAs with the highest number of environment-related provisions are agreements negotiated between developed and developing countries. Developed countries appear to be the primary proponents of the inclusion of environment-related provisions in RTAs. Yet, several developing countries, in particular those having already signed RTAs incorporating environmental provisions with developed countries, have also been increasingly including environment-related provisions into their trade agreements negotiated with other developing countries. The scope and level of commitments of these provisions are, however, usually not as detailed as those found in RTAs negotiated between developed and developing countries.

The remainder of the paper is structured as follows. Section 2 provides the methodology used to identify the various environment-related provisions included in RTAs and related documents. While Section 3 provides an overview of the main types of environment-related provisions, Section 4 discusses the structure and location of environment-related provisions in RTAs. A detailed quantitative analysis for each type of environment-related provisions is presented in Section 5. Finally, Section 6 concludes with an overall synthesis of the main approaches to address environment-related provisions in RTAs based on the analysis discussed in previous sections.

[2] See WTO (2011) for a review of RTAs.
[3] See OECD (2007, 2008, 2009, 2010, 2011, 2012, 2013a); Less and Kim (2008); and Colyer (2011).

2 METHODOLOGY

This study has two objectives: (1) the establishment of a comprehensive typology of environment-related provisions included in RTAs; and (2) an analytical and quantitative review of these environment-related provisions. The analysis covers all the RTAs currently into force that have been notified to the WTO between 1957 and May 2016 under Article XXIV of the GATT-1994, Article V of the GATS, or paragraph 2(c) of the WTO Decision on "Differential and More Favourable Treatment, Reciprocity, and Fuller Participation of Developing Countries" (enabling clause).[4] Preferential trade agreements, defined as non-reciprocal preferential schemes, are excluded from the analysis. Therefore, this study does not analyse preferential trade agreements with environmental conditionality, such as the European Union Generalized System of Preferences granting duty-free on the same product categories covered by the general scheme to developing countries having ratified and effectively implemented international conventions relating to human and labour rights, environment and good governance. In total, 270 RTAs are reviewed, including the related documents that are part of trade agreements, such as annexes, side agreements, memoranda of understanding and communication letters.[5]

Unless specified otherwise, the notion of environment-related provisions is defined as any provisions referring directly and explicitly to the protection of the environment, sustainable development and other environment-related issues. The following keywords have been used to identify environment-related provisions: Animal, Article XIV GATS, Article XX GATT, Article 27 of the Agreement on trade-related aspects of intellectual property rights (TRIPS), Basel Convention, Biological diversity, Chemical, Climate, Ecology, Endangered Species, Energy, Environment, Fauna, Flora, Montreal Protocol, Natural resources, Ozone, Plant, Pollution, Renewable, Rotterdam Convention, Stockholm Convention, Sustainable, Waste, and Wildlife. Although not discussed in this study, there are a multitude of provisions in RTAs (as well as in WTO Agreements) potentially relevant to trade-related environmental policies, even though these provisions do not make explicit reference to the environment.

Besides the difficulty in expressing environment-related qualitative information into comparable quantitative information, different criteria can be used to classify environmental-related provisions incorporated into RTAs: the provision's nature, location in the agreement, rationale for inclusion, subject covered, and degree of enforcement. The approach adopted in this study combines these different criteria in order to be as exhaustive as possible and to measure the level of details of the different environment-related provisions incorporated in RTAs. This quantification however does not seek to assess the actual level of enforcement or implementation of these environment-related provisions, which is outside the scope of this study. The actual level of implementation of environment-related provisions is likely to be specific to each RTA and determined by the parties' political will and available financial resources.[6]

[4] The WTO's RTAs Database, which compiles all the notified agreements to the WTO, is available at http://rtais.wto.org/. Because the notification of RTAs can be delayed, not all RTAs currently in force are covered by the analysis.

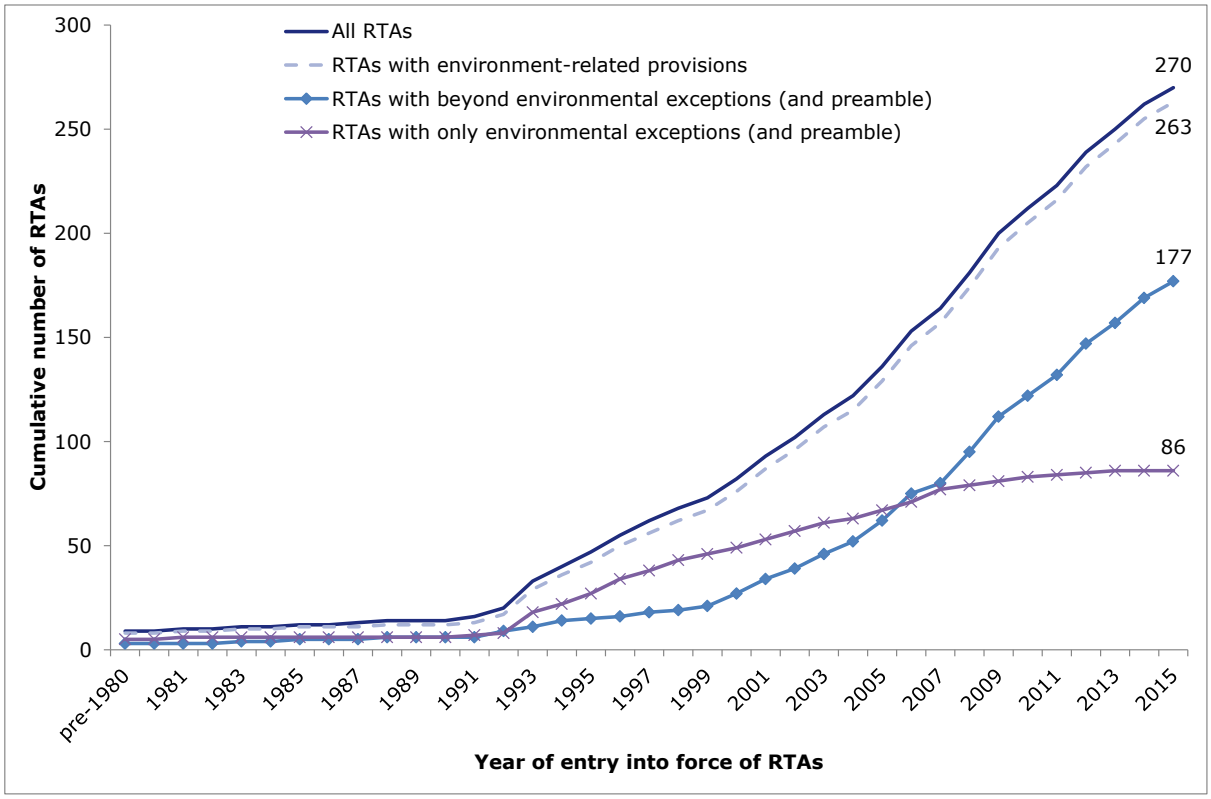
[5] With a few exceptions, most side documents were negotiated at the same as the RTA.

[6] This issue has received some attention lately in the literature. See Coyler (2011) for a review of the effectiveness of specific environment-related provisions in selected RTAs.

3 OVERVIEW AND TRENDS OF ENVIRONMENT-RELATED PROVISIONS IN RTAS

As highlighted in Figure 1, the vast majority of the RTAs, namely 263 agreements representing 97% of all the notified RTAs, incorporate at least one provision mentioning explicitly the environment. The evolution of RTAs with environment-related provisions can be characterized by three different periods.

Figure 1: Evolution of RTAs with provisions explicitly mentioning environment



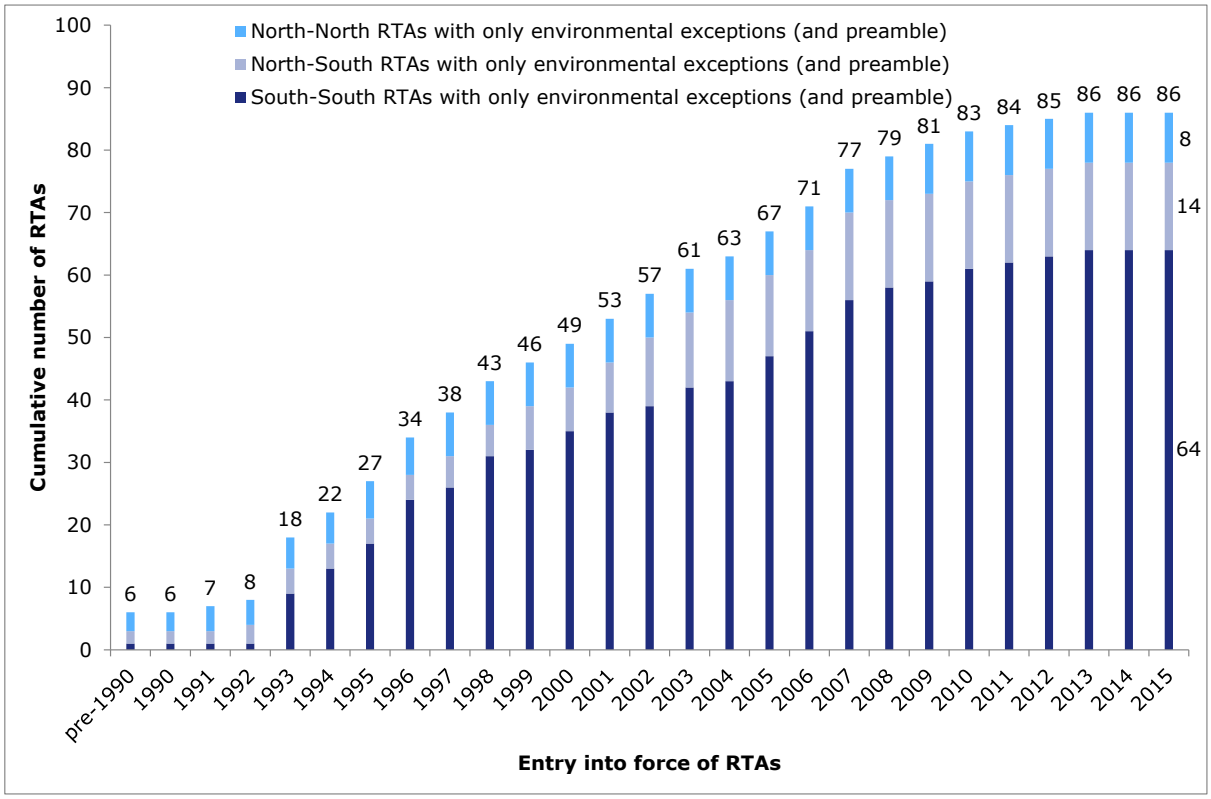
Source: Computations based on WTO RTA database.

Prior to 1992, only a few RTAs have been negotiated. The Treaty establishing the European Economic Community is the first RTA to include a provision related to the environment. The exceptions clause specifies that prohibitions or restrictions on imports, exports or goods in transit justified on grounds of the protection of health and life of animals or plants are not precluded as long as such prohibitions or restrictions do not constitute a means of arbitrary discrimination or a disguised restriction on trade. The European Free Trade Association (EFTA) is the second RTA with environment-related provisions and the first one mentioning explicitly the environment. Its article on safeguards stipulates that if serious environmental difficulties of a sectorial or regional nature liable to persist are arising, a party may unilaterally take appropriate measures under the conditions and procedures set out in the agreement.

Between 1992 and 2005, the number of RTAs with environment-related provisions increased at a higher pace, but the number of specific environment-related provisions included in those RTAs remained limited with mostly environment-related exceptions and preamble language. This period marked, however, the emergence of certain RTAs incorporating new types of environment-related provisions. The North American Free Trade Agreement (NAFTA), signed in 1992 and entered into force in 1994, is the first RTA to contain detailed environment-related provisions in the main text of the RTA as well as in a dedicated environmental cooperation agreement. The agreement lays down the commitment to effectively enforce environmental laws and standards and to not lower them in order to attract investment. A range of environment-related institutional arrangements, reviewing and monitoring mechanisms and dispute settlement procedures are also included in the side agreement.

From 2005, not only the number of RTAs with environment-related provisions has continued to grow but the number of RTAs containing provisions that go beyond environmental exceptions has also accelerated, in particular since 2008. This increase in the total number of RTAs with environment-related provisions is mainly driven by the surge in the number of such agreements involving developing countries.

Figure 2: Evolution of RTAs with only environmental exceptions (and preamble)

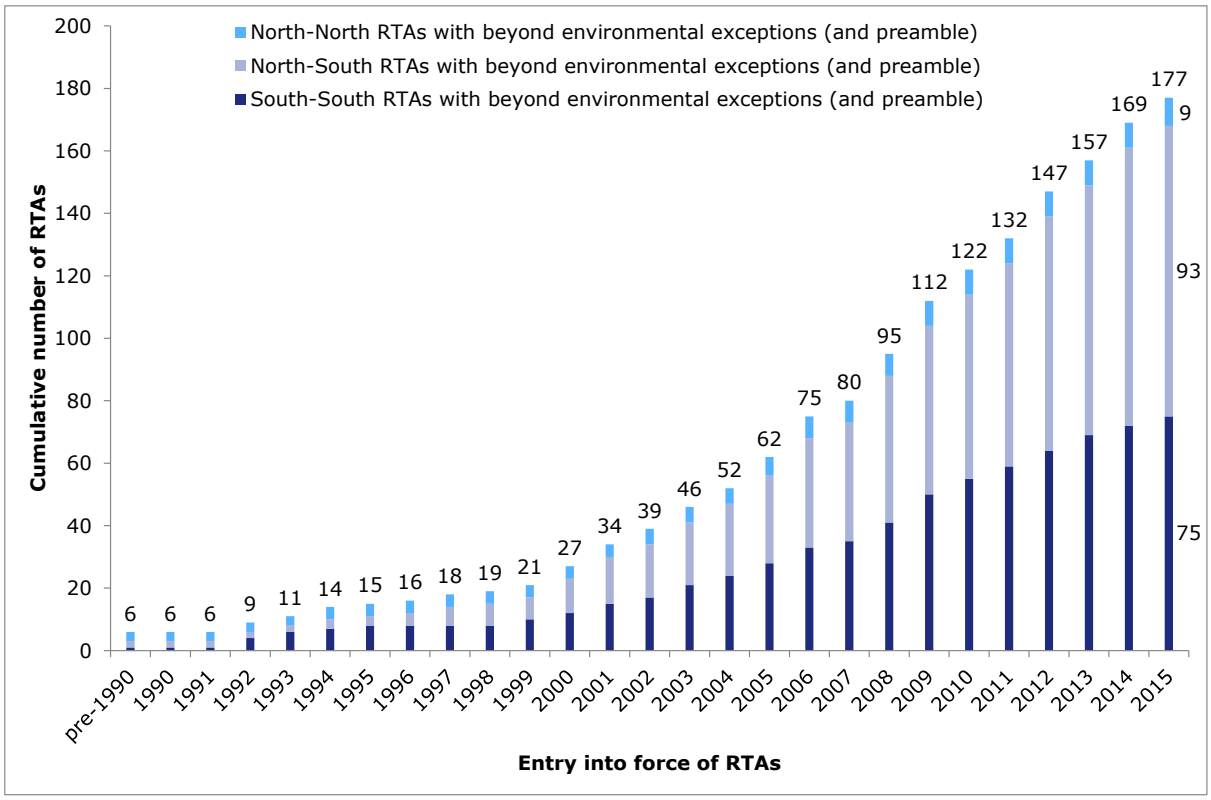


Source: Computations based on WTO RTA database.

As explained above, and highlighted in Figure 2, the number of RTAs with only environmental exceptions (and preamble) has remain relative stable since 2005. Most of these RTAs, namely 64 agreements, have been negotiated between developing countries. A limited number of RTAs negotiated between developed and developing countries incorporate only environmental exception clause (and preamble language in some RTAs) as environment-related provisions.

Conversely, as shown in Figure 3, initially, the RTAs with environment-related provisions beyond environmental exceptions were mostly negotiated between developed and developing countries. Part of this trend is explained by the fact that several developed countries have adopted domestic laws requiring the inclusion of environment-related provisions in all the RTAs they negotiate. For example, under the US Trade Act of 2002, the United States is required to include detailed environmental provisions in all of its RTAs. Similarly, the EU Sustainable Development Strategy, adopted in 2001, requires the EU to actively promote sustainable development worldwide. Since 2001, the New Zealand government has also been required to integrate trade and environment policies in all international negotiations. As of May 2016, 53% and 42% of the RTAs incorporating environment-related provisions (beyond environmental exceptions) were agreements negotiated, respectively, between developed and developing countries (93 North-south RTAs) and between developing countries (75 South-South RTAs). Only 9 RTAs negotiated between developed countries contain environment-related provisions (beyond environmental exceptions).

Figure 3: Evolution of RTAs with beyond environmental exceptions



Source: Computations based on WTO RTA database.

4 STRUCTURE AND LOCATION OF ENVIRONMENT-RELATED PROVISIONS IN RTAS

A structural analysis shows that environment-related provisions can be included in different parts of the RTAs and as a result can take different structures and forms. As reported in Table 1, environment-related provisions can be included in the main text of the RTA, including its annex, or in a supplement or protocol to the agreement or side documents associated with the RTA.

Table 1: Main locations and forms of environment-related provisions

Location and structure of environment-related provisions	Number of RTAs
1. Main text of the RTA:	**263**
- Preamble	120
- Within article(s)/paragraph(s) not specific to environment	263
- Specific article(s)/paragraph(s) on environment	114
- Specific chapter on environment	46
- Annex(es)	104
2. Supplement(s)/Protocol(s) to the RTA:	**10**
- Preamble	1
- Within article(s)/paragraph(s) on environment	10
- Specific article(s)/paragraph(s) on environment	6
- Specific chapter on environment	1
3. Side document(s) to the RTA:	**37**
- Side letter(s) on environment	4
- Joint statement(s) on environment	7
- Memorandum(a) of understanding/ intent on environment	7
- Side agreement(s) on environment	24

Source: Computations based on WTO RTA database.

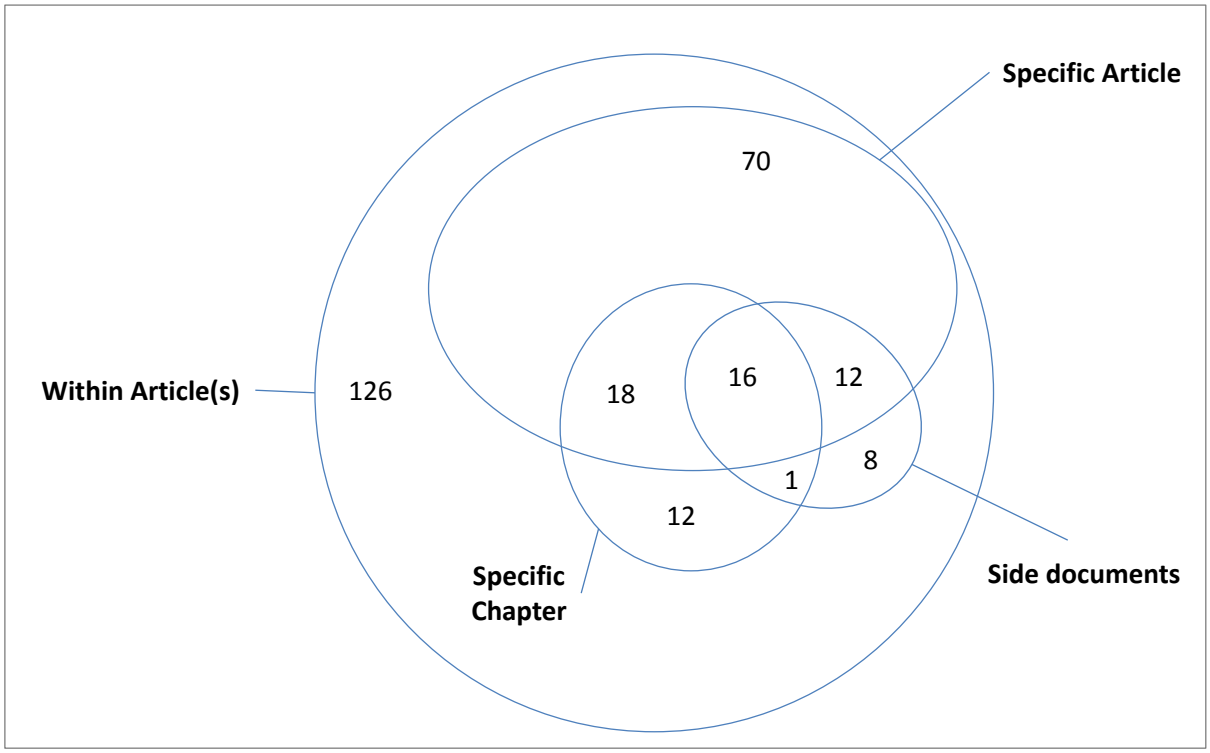
For many RTAs, namely 120 agreements, the first reference to the environment or sustainable development is located in the preamble. Environment-related provisions located in the main text of the RTAs can adopt up to three non-mutually exclusive forms. First, environment-related issues can be explicitly mentioned within an article that is not specific to the environment. This is the most common form of environment-related provisions with 263 RTAs containing such provisions. For instance, most RTAs include an exception clause that lays out a number of specific policy objectives, including the protection of animal, or plant life or health, or the conservation of natural resources. Second, 114 RTAs include a specific environmental article in a chapter covering other issues or measures, such as investment, intellectual property rights and cooperation. For instance, a number of RTAs include an article on environmental measures in the investment chapter that specify the right to adopt, maintain and enforce environmental measures consistent with the investment chapter. Third, 46 RTAs include an entire chapter dedicated to matters related to the environment and/or sustainable development.[7] In addition environment-related provisions can also be found in the annexes of the agreement. 104 RTAs contain environment-related provisions, such as the schedules of specific commitments in environmental services.

[7] In many RTAs to which the EU or the EFTA states are a party, the chapter on sustainable development include environment- as well as labour-related provisions.

A similar categorization applies to supplements or protocols to the RTAs. 10 protocols or supplements to the RTAs include environment-related provisions. For instance, the protocol amending the trade agreement between the EFTA states and Albania incorporates environment-related preamble language as well as an entirely new chapter on trade and sustainable development. The other protocols or supplements contain mainly provisions on environmental cooperation, including specific articles in six agreements. Some of these protocols have been negotiated at the same time of the RTA, others after its entry into force.

Besides the RTA in itself, a number of side documents, negotiated in parallel to the trade agreement or in some cases after its entry into force, include also specific environment-related provisions. Four RTAs include side letters clarifying some of the RTAs' environment-related provisions. For instance, the RTA between Japan and the Philippines includes an exchange of letters confirming, among other things, that the agreement does not prevent the adoption or enforcement of measures prohibiting the exports of toxic wastes under existing and future national laws, rules and regulations in accordance with the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. Seven trade agreements include also a joint statement on environmental technical cooperation or discussing the parties' understanding on specific environmental issues. For example, the RTA between the United States and Peru contains an understanding on biological diversity and traditional knowledge. Seven RTAs incorporate a memorandum of intent or understanding on environmental cooperation listing specific topics and forms of cooperation. Finally, 24 RTAs are complemented by a detailed agreement on environmental cooperation or a protocol on environmental management.

Figure 4: Structure of environment-related provisions in RTAs



Note: Annexes are not explicitly reported because all the RTAs with environment-related provisions in their annexes include also at least one environmental provision within a given article.
Source: Computations based on WTO RTA database.

As depicted in Figure 4, the decision to include or not environment-related provisions and where to locate such provisions in the RTA vary significantly among RTAs, even among RTAs negotiated by the same country. The different structures and forms of environment-related provisions are not necessarily mutually exclusive. Almost half of the notified RTAs, 126 agreements (47%), have opted for the approach to include only environment-related provisions within some articles located in the main body of the RTA. The remaining 144 notified RTAs (53%) have adopted different approaches under which different environment-related provisions are located within non-specific articles in the main body of the RTA as well as in specific article(s), chapter(s), or side document(s). For instance, 16 RTAs contain environment-related provisions within several articles, as well as in one or more specific environmental articles, a specific environment chapter, and in at least one side document. This is the case of the East African Community (EAC) and most post-NAFTA RTAs negotiated by the United States and Canada.

As suggested by Figure 5, the structure of environment-related provisions in RTAs has evolved over time. Initially, most environment-related provisions were limited to one or two forms, mostly within an article and a specific article on the environment. The number of RTAs with more than two forms of environment-related provisions has increased since 2003. With a few exceptions, most RTAs with at least two or more different forms of environment-related provisions have been negotiated between developed and developing countries. The RTAs to which the United States is a party with Oman, Peru, Colombia and the Republic of Korea are the agreements with the highest number of different forms of environment-related provisions. For instance, both RTAs negotiated by the United States with Peru and Colombia include environment-related provisions that are located in the main text of the agreement within non-specific articles as well as in a specific article and a dedicated chapter on the environment. In addition, both agreements are complemented by an understanding on biodiversity and a parallel environmental cooperation agreement.

Figure 5: Evolution of the structure of environment-related provisions in RTAs

Source: Computations based on WTO RTA database.

As discussed next, the heterogeneity of the forms of environment-related provisions and the multiplicity of locations imply that the environment-related provisions in themselves will vary significantly in terms of purpose, nature, scope and language from one RTA to another, even between RTAs negotiated by the same country.

5 TYPOLOGY OF ENVIRONMENT-RELATED PROVISIONS IN RTAS

Overall the purpose, nature, scope and language of environment-related provisions in RTAs vary significantly among RTAs, even among agreements negotiated by the same country. Two RTAs can incorporate a provision referring to the same issue, but take a different form, be located in a different part of the RTA and expressed in a different language. This heterogeneity makes the task of identifying commonalities and differences particularly difficult.

As listed in Table 2, 62 main types of environment-related provisions have been identified. Environment-related provisions range from preamble language to specific commitments on domestic environmental law, MEAs, biodiversity, environmental goods and services, trade in natural resource products, environmental governance and cooperation. In addition, a number of environment-related provisions establish institutional arrangements, including environmental impact review of the RTA, as well as consultation and dispute settlement procedures. This list is, however, not completely exhaustive, as other types of environment-related provisions are often specific to a single or few RTAs.

Table 2: Main types of environment-related provisions

Main types		Number of RTAs
1.	Preamble language	121
2.	Objectives of the RTA	22
3.	**Domestic environmental laws**	
3.1.	Definition/scope of environmental laws	30
3.2.	Right to regulate and set the level of environmental protection	
	1. Environmental laws, regulations and policies	54
	2. Environment-related technical regulations and standards	47
	3. Sanitary and phytosanitary measures	42
	4. Environment-related performance requirements on investment	56
	5. Environment-related technical specifications in procurements	31
3.3.	High level of environmental protection	41
3.4	Improvement of environmental protection	45
3.5.	Adoption of environmental laws	10
3.6.	Enforcement of environmental laws	11
3.7.	Upholding of environmental laws	78
3.8	Harmonization of environmental laws	39
3.9	Principles of environmental laws	29
3.10.	Economic and voluntary environmental performance mechanisms	28
3.11.	Corporate stewardship and corporate social responsibility	22
3.12.	Environmental impact assessment of projects/activities	32
3.13.	Environmental laws not for trade protectionist purposes	18
3.14.	General exceptions	262
3.15.	Other exceptions, exemptions, exclusions and safeguards	64
3.16.	Indirect expropriation	46

	Main types	Number of RTAs
4.	**Multilateral environmental agreements (MEAs)**	
4.1.	Importance of MEAs	28
4.2.	Reaffirmation of MEAs' obligations	34
4.3.	Environmental laws consistent and in compliance with MEAs' obligations	51
4.4.	Adoption and upholding of laws to fulfil the obligations under covered MEAs	5
4.5.	Accession and ratification of MEAs	5
4.6.	Dialogue and cooperation on MEAs	47
4.7.	Relationship between the RTA and MEAs	75
4.8.	MEAs-related consultations and dispute procedures	22
5.	**Intellectual property rights**	
5.1.	Plant varieties rights	66
5.2.	Biodiversity and traditional knowledge	28
6.	**Environment-related goods, services and technologies**	
6.1.	Promotion of trade of environmental goods and services	26
6.2.	Agreed list of duty-free environmental goods	2
6.3.	Schedule of commitments on environmental services	101
7.	**Natural resources management and specific environmental issues**	
7.1.	Fisheries management and trade in fish products	35
7.2.	Forestry management and trade in forest products	40
7.3.	Energy and mineral resources management	68
7.4.	Climate change	34
8.	**Environmental governance**	
8.1.	Transparency and right to information	78
8.2.	Opportunities for public participation	36
8.3.	Right to justice and procedural guarantees	28
9.	**Cooperation**	
9.1.	Environmental cooperation on specific issues	
	1. Cooperation on the environment in general	61
	2. Cooperation on specific environmental issues	82
9.2.	Environmental cooperation on specific sectors	
	1. Integration of environmental protection in cooperative activities	18
	2. Cooperation on specific sectors	72
9.3.	Specific forms of environmental cooperation	75
9.4.	Duty-free/facilitated entry of equipment and personnel of environmental project(s)	9
9.5.	Cooperation subject to available financial resources	27
10.	**Institutional arrangements**	
10.1.	Institutional procedures	
	1. RTA's institution	30
	2. Environmental institution	36
	3. National contact point/coordinator	49
	4. Advisory/Civil society committees	19
10.2.	Environmental impact assessment of the RTA/trade	22
10.3.	Submission on enforcement issues	12

Main types		Number of RTAs
11.	**Consultations procedures**	
11.1.	Consultations on environmental matters under the RTA's investment chapter	24
11.2.	Consultations on environmental matters under the RTAs' environment chapter	34
11.3.	Consultations on environmental matters under the environmental side agreements	16
12.	**Dispute settlement procedures**	
12.1.	Choice of dispute settlement forum between the RTA and a listed MEA	10
12.2.	Dispute settlement on environmental matters under the RTA's investment chapter	31
12.3.	Dispute settlement on environmental matters under the RTAs' environment chapter	23
12.4.	Dispute settlement on environmental matters under the environmental agreements	5

Source: Computations based on WTO RTA database.

As explained previously, the environment and sustainable development can be first mentioned in the preamble. In addition to the preamble, a number of RTAs include a chapter laying down the RTA's objectives, some of which are related to environmental protection and sustainable development.

Besides preamble language and the RTA's objective, some of the most common types of environment-related provisions refer to domestic environmental laws, policies and regulations. For instance, many provisions recognize explicitly the right of the parties to adopt environmental policies, including sanitary and phytosanitary measures and technical regulation to protect the life and health of animal and plants. Other types of provisions specify commitments with regard to the implementation and uphold of domestic environmental laws and policies. The promotion of complementary and voluntary mechanisms to enhance environmental performances, such as private-public-partnerships and voluntary guidelines for environmental performance, is also covered in different specific provisions. Similarly, several provisions promote the use of corporate stewardship and corporate social responsibility. Some provisions lay down principles of environmental laws, while others refer to the use of environmental impact assessment of projects and activities. A few provisions refer to the prohibition to use environmental laws for trade protectionist purposes. In that context, the most common type of environment-related provisions is an environmental exception clause allowing the parties to derogate from the RTA’s obligations to fulfil environment-related policy objectives. Other related provisions establish or authorize environment-related exemptions and exclusions, such as the possibility to exclude from patentability inventions in order to avoid serious prejudice to the environment. Several provisions also exclude, except in rare circumstances, the possibility that non-discriminatory regulatory actions designed and applied to protect the environment could constitute indirect expropriation.

A large number of environment-related provisions focus on MEAs, with in some cases specific commitments on a list of covered MEAs. Some of these provisions reaffirm the importance of MEAs, while others reaffirm the rights and obligations established under MEAs. Other provisions require the parties to ensure their environmental laws and policies are consistent and in compliance with MEAs' obligation. A few provisions further commit the parties to adopt and uphold environmental laws in order to fulfil the obligations of specific MEAs. A small number of provisions further require the parties to accede to certain MEAs. Several provisions clarify the relationship between the RTA and covered MEAs in case of inconsistency between the two. Several other provisions refer to the role of MEAs under the RTA's consultations and dispute settlement mechanisms.

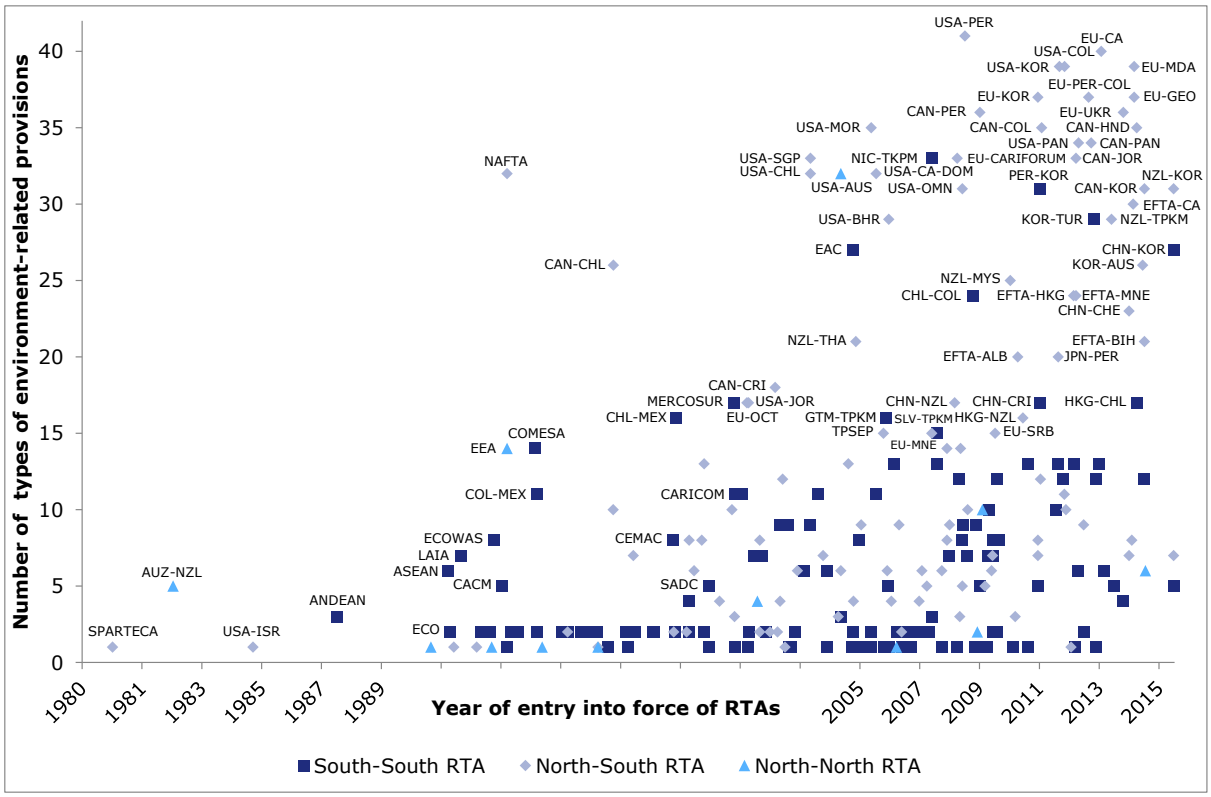
More recently, several provisions refer to the promotion of environmental goods, services and technologies. A few provisions have further identified a list of specific environmental goods whose tariffs are to be eliminated. Similarly, many provisions establish specific commitments on the liberalization of environmental services. Several intellectual property provisions specify also commitments regarding plant varieties protection and biotechnology. Likewise, the issue of biodiversity and traditional knowledge is covered in a limited but increasing number of provisions. Many provisions also cover issues related to climate change as well as natural resources management and trade in natural resource-based products, including illegal fishing and logging, energy efficiency and renewable energy.

A number of environment-related provisions build on some of the environmental governance principles established under the UN Rio Declaration on Sustainable Development. In particular, several provisions establish commitments regarding transparency and access to information on environmental laws and matters, including education and awareness. A second element of environmental governance promoted in other provisions is public participation in environmental matters, such as the development and implementation of environmental laws and cooperative activities. A third element of environmental governance covered in several other provisions relates to access to justice and procedural guarantees in case of violation of domestic environmental laws.

One of the most common but also most heterogeneous types of environment-related provisions relates to environmental cooperation activities aimed, in many cases, at facilitating the implementation of the RTA's environmental commitments. A limited number of provisions underscore the cross-cutting nature of the environment and commit the parties to integrate environmental protection in cooperation and technical assistance activities. Other provisions identify the environment as one general cooperation area. Conversely, others cooperation provisions mention specific environmental issues (water management, air pollution …) or specific sectors (e.g. energy, agriculture …). Some provisions also specify the form that such cooperation may take (e.g. information exchange, training …). A few provisions further request the parties to facilitate the entry of equipment and personnel involved in environmental cooperation. Other provisions confirm that cooperation activities are subject to funds availability.
Many RTAs with a specific environment chapter or side environmental agreement include provisions establishing institutional arrangements, such as the creation of specific bodies to oversee the implementation of the environmental commitments and cooperation activities. Several provisions further require the parties to identify a national contact point or coordinator in order to facilitate communication between the parties. Other institutional provisions include the convening of national consultative or advisory committees, comprising representatives of environmental and business organizations as well as the general public, to provide advice on the implementation of the environment chapter or environmental side agreement. One particular institutional mechanism, available in a few RTAs, allows individuals to submit questions or file complaints alleging that one of the parties is failing to effectively enforce its environmental laws. A few provisions also foresee the possibility to assess the RTA's environmental impact.

The possibility to hold specific environment-related consultations procedures regarding any environment-related matter arising under the environment chapter and/or side environmental agreements is available in a number of RTAs. Other provisions, included in the RTA's investment chapter, offer the parties with the possibility to request consultations when they consider that the other party has offered to exempt, eliminate, waive or derogate from domestic environmental measures to encourage investment. A limited number of RTAs further establish specific dispute settlement procedures when the environmental consultations failed to resolve the issue arising under the chapters on investment or the environment, or the environmental side agreement. In case of inconsistency between the RTA's obligations and the specific trade obligations set in out in covered MEAs, a few provisions foresee the possibility to resort only to the RTA's dispute settlement. Conversely, other provisions specify that the RTA's dispute settlement chapter does not apply to the environment chapter.

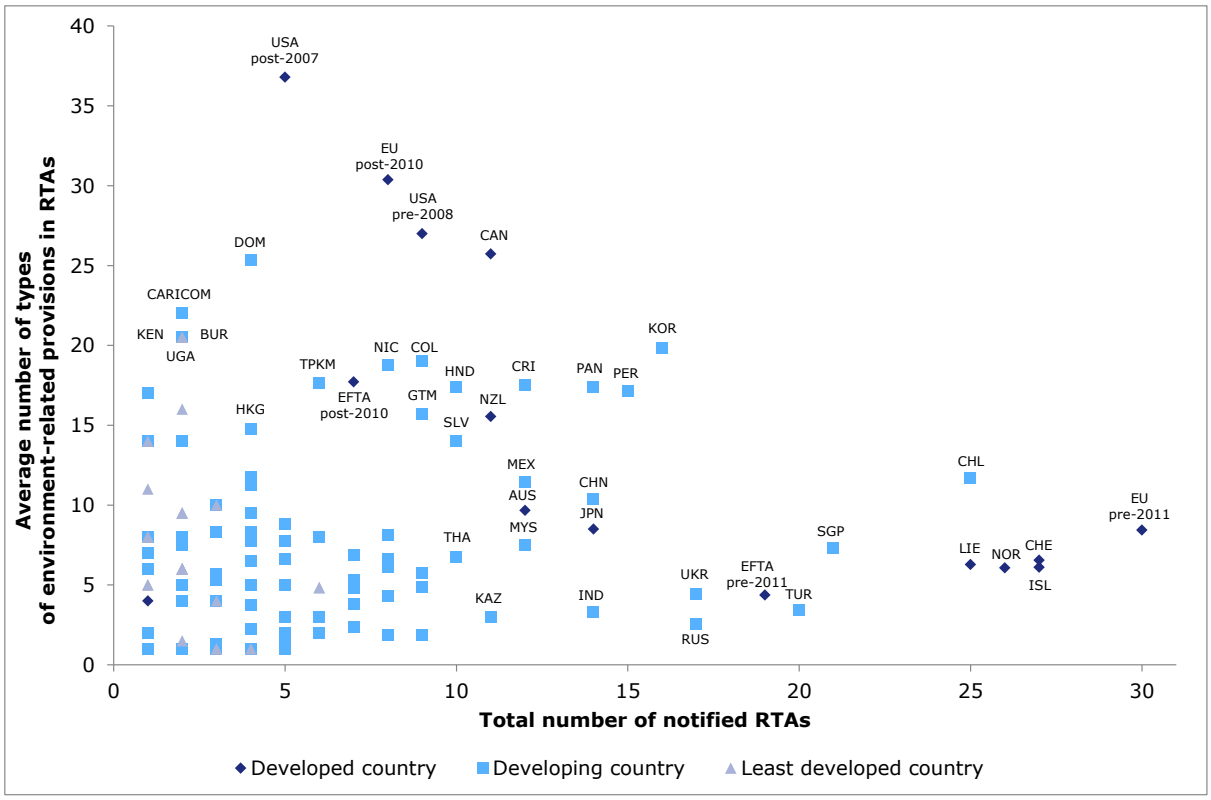
Figure 6: Evolution of the number of types of environment-related provisions in RTAs



Source: Computations based on WTO RTA database.

The identification of the different main types of environment-related provisions listed in Table 2 enables to distinguish RTAs in terms of scope and number of types of environment-related provisions. As highlighted in Figure 6, the RTA between the United States and Peru is the trade agreement with the highest number of different environment-related provisions. In particular, the agreement includes, among other, some environment-related preamble language, an environmental exception clause, an article on environmental measure in the investment chapter, a specific environment chapter with various provisions, including on the enforcement of environmental laws, MEAs, access to justice, mechanisms to enhance environmental performance as well as a detailed annex on forest sector governance. A side environmental cooperation agreement establishing a work program and cooperation areas, and an understanding on biodiversity and traditional knowledge complement the RTA. More recently, the RTA negotiated by the EU with Central America includes also a relatively high number of different types of environment-related provisions, including some preamble language, one of the RTA's objectives, an exception clause, an article on the environment in the chapter on political dialogue, a chapter on cooperation in environment, natural disasters and climate change, various environmental articles in the chapter on cooperation in economic and trade development, as well as a chapter on trade and sustainable development covering various issues, such as the enforcement of environmental laws, MEAs, trade in environmental goods and services, and trade in forest and fish products.

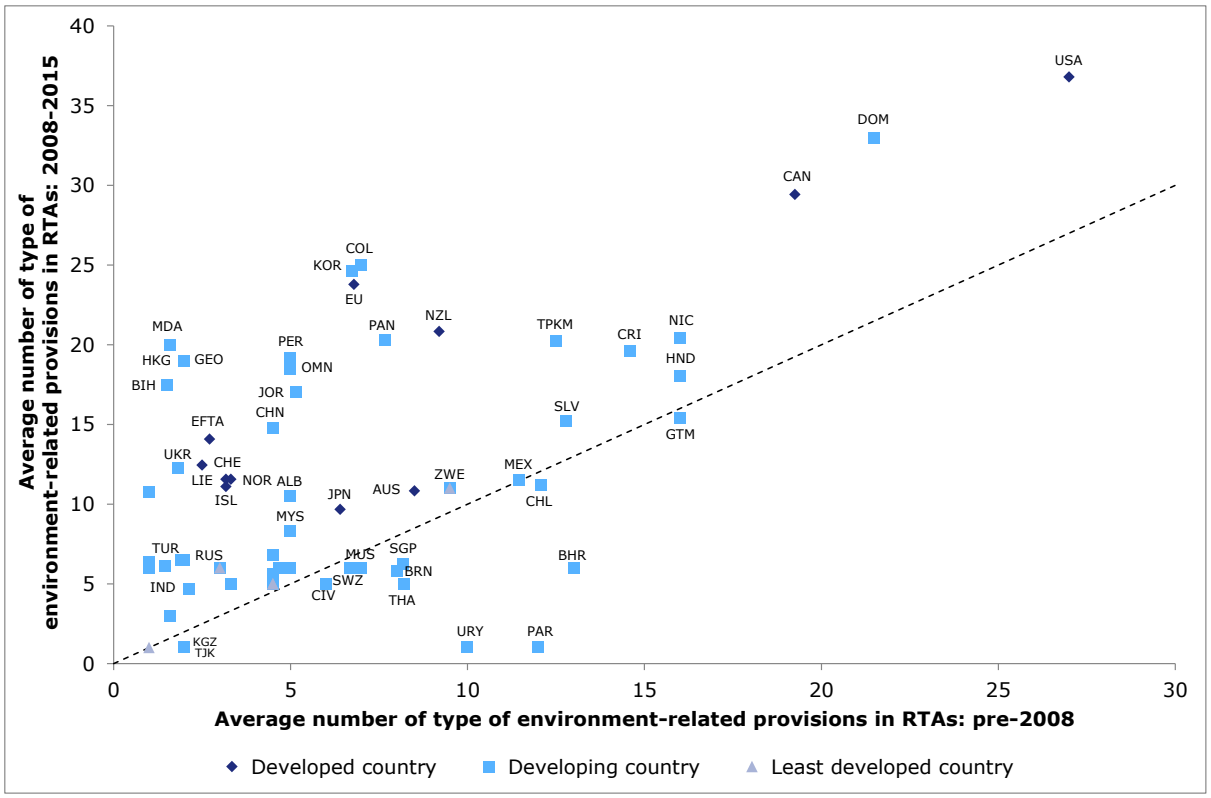
Figure 7: Average number of types of environment-related provisions in RTAs by country



Source: Computations based on WTO RTA database.

Overall, and as reported in Figure 7, the RTAs to which the United States, Canada, the EU, and more recently New Zealand and the EFTA States are parties and negotiated with developing countries tend to incorporate a high number of types of environment-related provisions. Several RTAs negotiated among developing countries also include a relatively high number of types of environment-related provisions, such as the RTA between Nicaragua and Chinese Taipei, the agreements negotiated by the Republic of Korea with Peru, Turkey and China, as well as the Protocol on the Establishment of the EAC Common Market and the associated the Protocol on Environment and Natural Resources Management. Other developing countries with a relative high number of types of environment-related provisions in their RTAs involve many Latin and Central American countries, namely Colombia, Nicaragua, Costa Rica, Panama, Peru, Chile, and Mexico. Conversely, countries from Central and Eastern Europe and Central Asia, such as Ukraine and the Russian Federation, have, on average, negotiated RTAs with a limited number of environment-related provisions. Among developed countries, Australia, Japan, Norway, Iceland and Switzerland, are also, on average, party to RTAs with far fewer different types of environment-related provisions in comparison to other developed countries.

Figure 8: Evolution of the average number of environment-related provisions by country

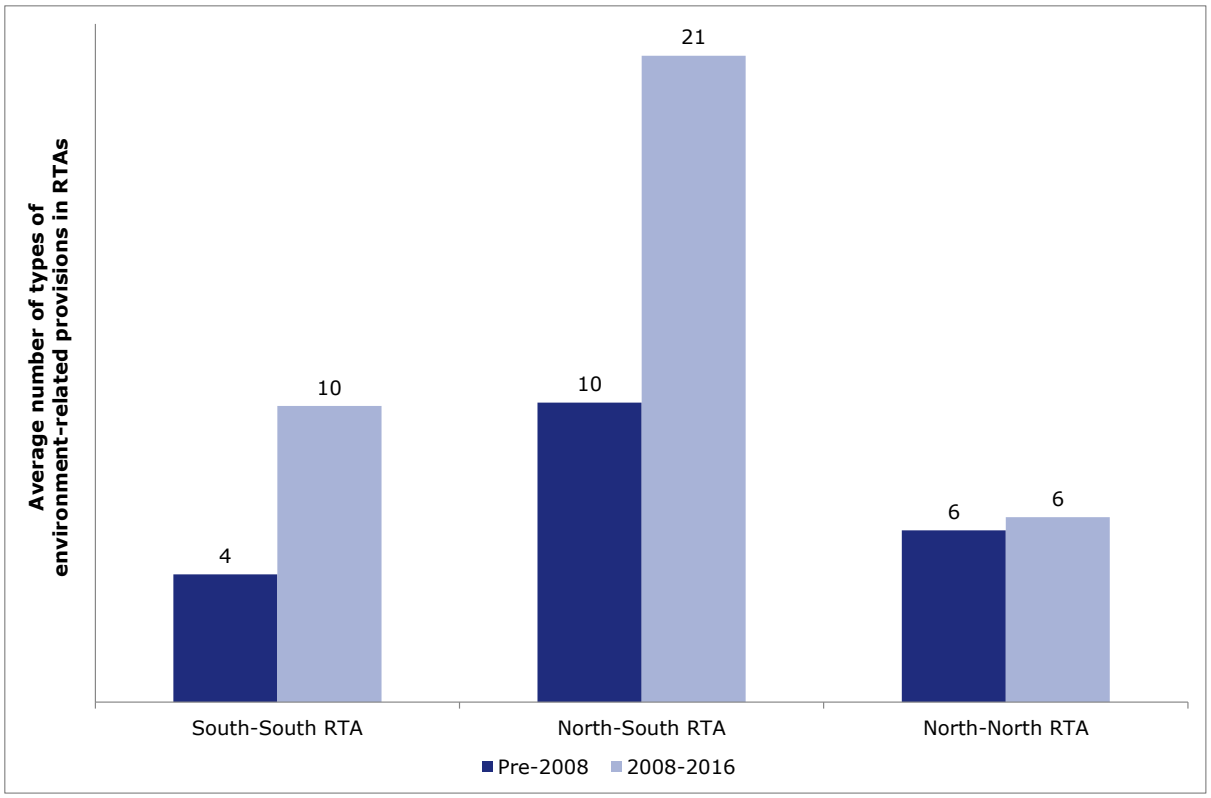


Source: Computations based on WTO RTA database.

In reality, the inclusion of environment-related provisions in RTAs is a dynamic process. The position on whether or not to include environment-related provisions can change over time and depends also on the countries that participate in the negotiations. In this context, the broad variety of environment-related provisions can be viewed as a reflection of the differences of views among countries on whether and how to address environmental issues in RTAs. As depicted in Figure 8, a majority of countries having negotiated several RTAs in the last 9 years (2008-2016) have, on average, incorporated a relatively larger number of types of environment-related provisions in their agreements compared to their former RTAs signed before 2008. Colombia, the Republic of Korea and Hong Kong (China) followed by Peru, Panama, Jordan, the Dominican Republic and China are the developing countries whose average number of types of environment-related provisions in RTAs has increased the most since 2008. Similarly, the EU followed by New Zealand, the EFTA states, Canada, Switzerland and the United States have increased significantly the average number of types of environment-related provisions covered in RTAs and side documents.

This trend is confirmed by Figure 9, which shows that the average number of types of environment-related provisions in RTAs negotiated by developed and developing, but also in those signed between developing countries has more than doubled in the last 8 years (2008-2015). Part of the dynamic feature of environment-related provisions in RTAs stem from the fact that some countries do not necessarily define and apply a uniform and standardized approach to address environmental issues in RTAs, while others have adjusted their standard approach as time passes.

Figure 9: Average number of environment-related provisions by development status



Source: Computations based on WTO RTA database.

While the identification and definition of the broad types of environment-related provisions reported in Table 2 are useful to get an overall view of the nature of environment-related provisions, an analysis based solely on these main types of provisions mask the large heterogeneity characterising most types of environment-related provisions. Environmental provisions do not only differ in terms of scope, but also in terms language, depth and enforceability. The next sub-sections review each main category of environment-related provisions and highlight the main trends as well as specific or idiosyncratic provisions. As explained previously, this study does not seek to assess the merits of incorporating environment-related provisions in RTAs. Rather, the objective is to provide with a comprehensive landscape of the different types of environment-related provisions encompassed in these broad categories.

5.1 Environment-related preamble of the RTA

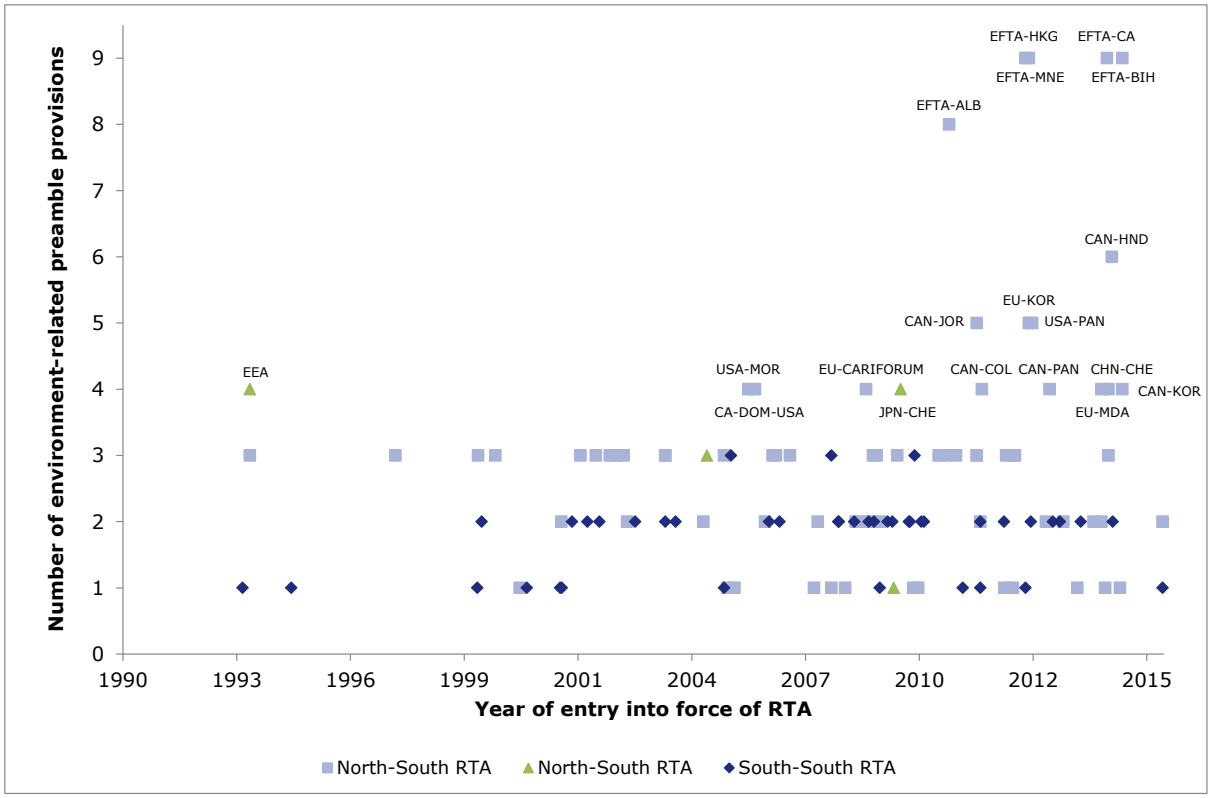
For 121 RTAs (45% of notified RTAs), the first explicit reference to shared objectives associated with sustainable development, environmental protection, natural resources conservation, or more recently green economy is located in the preamble.[8] The preamble of a RTA can provide insights on the parties' intention as well as the objectives that led to the signature of the RTA. According to Article 31.2 of the Vienna Convention on the Law of Treaties, the preamble forms part of the treaty and provides the context for the purposes of the interpretation of the treaty. The preamble of a treaty can therefore be relevant as a source of interpretative guidance in the implementation and dispute resolution processes.[9]

[8] The analysis of this section only covers the RTAs' preamble. The preamble of environmental cooperation side agreements are excluded from the analysis because they are by definition environment-related.

[9] This reading has been supported by the WTO Appellate Body consideration that the preamble to the Marrakech Agreement "[...] must add colour, texture and shading to our interpretation of the [WTO] agreements". See Appellate Body Report, US — Shrimp, para. 153.

A broad range of different wordings is used as preamble language, such as "recognition/acknowledgment" (27 RTAs), "desire/wish/willingness" (14 RTAs), "consideration" (11 RTAs), "awareness/mindfulness/consciousness" (15 RTAs), "recall/highlight" (6 RTAs), "determination" (36 RTAs), "resolution" (23 RTAs), "reaffirmation/affirmation" (12 RTAs), "seek/aim" (10 RTAs), "conviction/belief" (3 RTAs) or "commitment" (5 RTAs). Similarly, the scope of the environment-related issues covered in the preamble varies significantly between RTAs. In addition, the same environment-related objective or issue can be mentioned in the RTAs' preamble using different type of language. The diversity and heterogeneity in the wording of the environment-related issues and objectives raised in the preamble of RTAs are features that characterize the other types of environment-related provisions incorporated in RTAs. The most common environment-related preamble provisions call on parties to promote sustainable development (mentioned in 55 RTAs), and implement the RTA in a manner consistent with stated environmental goals, namely environmental protection (37 RTAs), sustainable development (24 RTAs), and natural resources' optimal use (15 RTAs). Similarly, some RTAs' preamble mentions the promotion of economic development consistent with the protection and conservation of the environment (18 RTAs) and with sustainable development (17 RTAs), including by highlighting the RTA's role in promoting sustainable development. Other preamble provisions call on parties to strengthen the development and enforcement of environmental laws (17 RTAs), enhance environmental cooperation (24 RTAs), and foster environmental protection and conservation, including through the implementation of MEAs (17 RTAs). Several environment-related preamble provisions are idiosyncratic or incorporated in a limited number of RTAs' preamble. For instance, eight RTAs mention the importance and need of mutual supportiveness between trade and environmental policies. Other examples of idiosyncratic environment-related preamble provisions include the European Economic Area agreement and the RTA between Japan and Switzerland which mention the parties' determination to, respectively, take a high level of protection concerning the environment as a basis in the further development of rules, and adequately address the challenges of climate change in implementing the agreement.

Figure 10: Evolution of environment-related preamble provisions



Source: Computations based on WTO RTA database.

As depicted in Figure 10, the preamble of RTAs negotiated by developed and developing countries tend to mention a higher number of environment-related issues and objectives than RTAs signed between developing countries. In particular, the RTAs to which the EFTA states are a party with Hong Kong (China), Montenegro, Central America and Bosnia and Herzegovina have the most detailed environment-related preamble provisions. The preamble of these four RTAs reaffirms the parties' commitment to pursue the objective of sustainable development and recognise the interdependence and mutual supportiveness of trade and environment policies in this respect. The preambles further recall the parties' rights and obligations under the MEAs to which they are parties. The four preambles also mention the objective to improve the parties' living conditions through liberalising trade and improving the levels of protection of the environment, and the parties' determination to implement the RTA in line with the objectives of environmental protection and optimal use of the world's resources. The preambles also acknowledge the importance of good corporate governance and corporate social responsibility, and affirm the parties' aim to encourage enterprises to observe internationally recognised guidelines and principles in this respect.

5.2 Environment-related objectives of the RTA

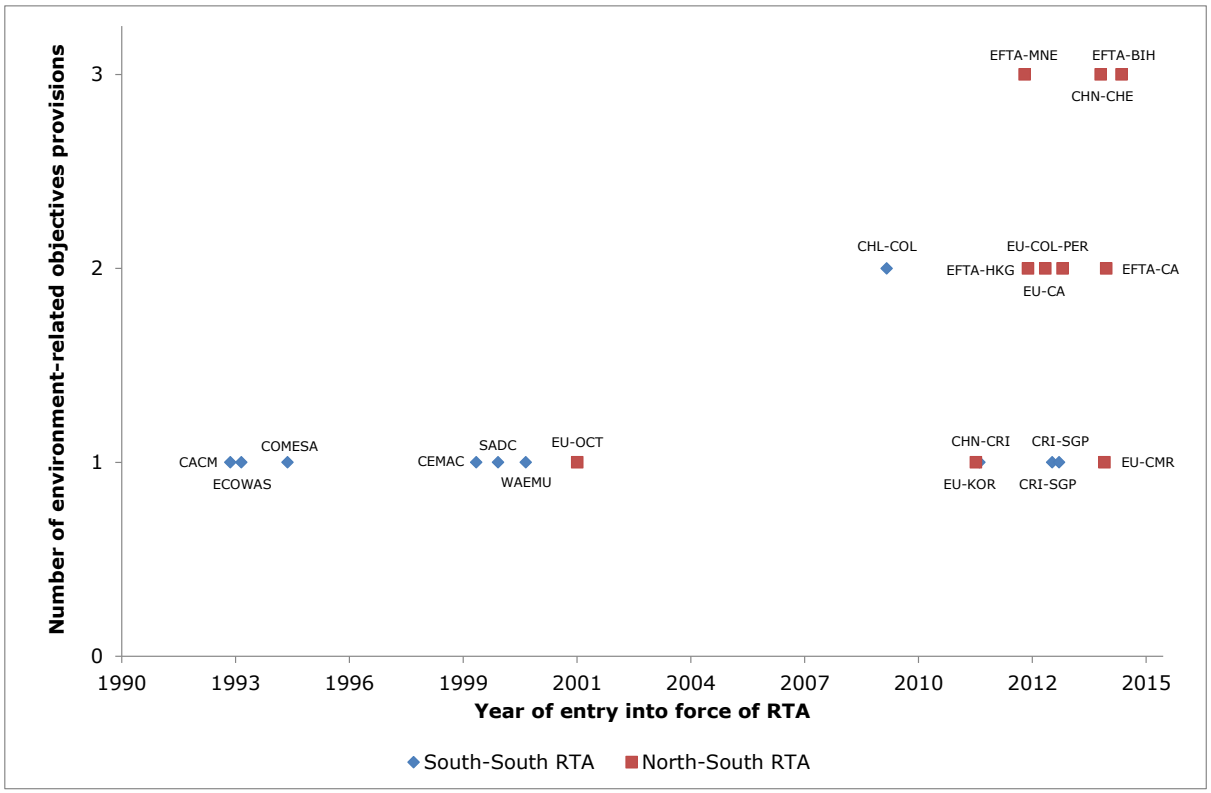
Besides the preamble, a limited number of RTAs, namely 22 agreements, include an article, usually located in the agreement's first chapter or section, laying down the RTA's objectives, some of which are related to environmental protection and sustainable development. Although initially environment-related objectives provisions were included mostly in custom unions, a limited but increasing number of free trade agreements (FTAs) also incorporate such type of provisions.

Most environment-related objectives provisions are similar to the environment-related provisions located in the RTAs' preamble. These environment-related objectives range from the promotion and achievement of sustainable development (6 RTAs) to the achievement and cooperation on the sustainable use of natural resources and the environment (2 RTAs) and the harmonization or coordination of the parties' environmental policies. The objectives related to sustainable development can take different forms, such as the pursuit of the RTA's objectives in accordance with sustainable development (2 RTAs), the integration of the objective of sustainable development in the parties' trade relationship (6 RTAs) or the development of international trade in such a way as to contribute to sustainable development (3 RTAs). Other more specific environment-related objectives include the promotion of foreign direct investment without lowering environmental standards, mentioned in the RTAs to which the Republic of Korea is a party with the EU and Turkey. Another environment-related objective, only found in the RTA between the EU and Central America is to at least maintain and preferably develop the level of environmental standards achieved through the effective implementation of international conventions of which the Parties are part of at the time of entry into force of the RTA.

As shown in Figure 11, RTAs negotiated by developed and developing countries mention, on average, a slightly higher number of environment-related objectives. For instance, the agreement between China and Switzerland, and the RTAs to which the EFTA states are a party with Montenegro and Bosnia and Herzegovina mention that a free trade area is established with a view to spurring sustainable development in the parties' territories. In addition, the three agreements specify that the objectives of their respective agreement is to develop international trade in such a way as to contribute to the objective of sustainable development and to ensure that this objective is integrated and reflected in the parties' trade relationship.

Although not discussed in details in this study, environment-related objectives are also listed in other chapters of 23 RTAs, such as the chapter on TBT (2 RTAs), SPS measures (2 RTAs), cooperation (2 RTAs) or environment (17 RTAs). In addition, 27 environmental side agreements lay down explicitly their respective objectives, which are by definition environment-related.

Figure 11: Evolution of environment-related objectives provisions



Source: Computations based on WTO RTA database.

5.3 Domestic environmental laws and policies

Provisions related to domestic environmental law, policies, measures or regulations are incorporated in an increasing number of RTAs. Similar to the other types of environment-related provisions, the nature and scope of these provisions vary greatly.

Some provisions recognize explicitly each party's right to adopt measures necessary to protect the environment, including animal and plant health and life and define the level of environmental protection. Other provisions go further and encourage or commit the parties to ensure their existing domestic environmental laws provide for high levels of environmental protection and continue to improve them. Some provisions call on the parties to adopt environmental laws and regulations. Besides the commitment to adopt environmental laws, other provisions specify explicitly the obligation to enforce environment laws. Several other provisions further exhort or commit the parties not to weaken or fail to enforce their domestic environmental laws in order to encourage trade or investment. A few other provisions refer also to the harmonization of environmental laws or the establishment of minimum environmental standards among the parties to the RTA. Other provisions identify various principles associated with the elaboration and implementation of environmental laws. The promotion of economic and voluntary mechanisms to enhance environmental performances, including corporate stewardship and corporate social responsibility, is also covered in different specific provisions. A few provisions promote the use of environmental impact assessments of projects and activities.

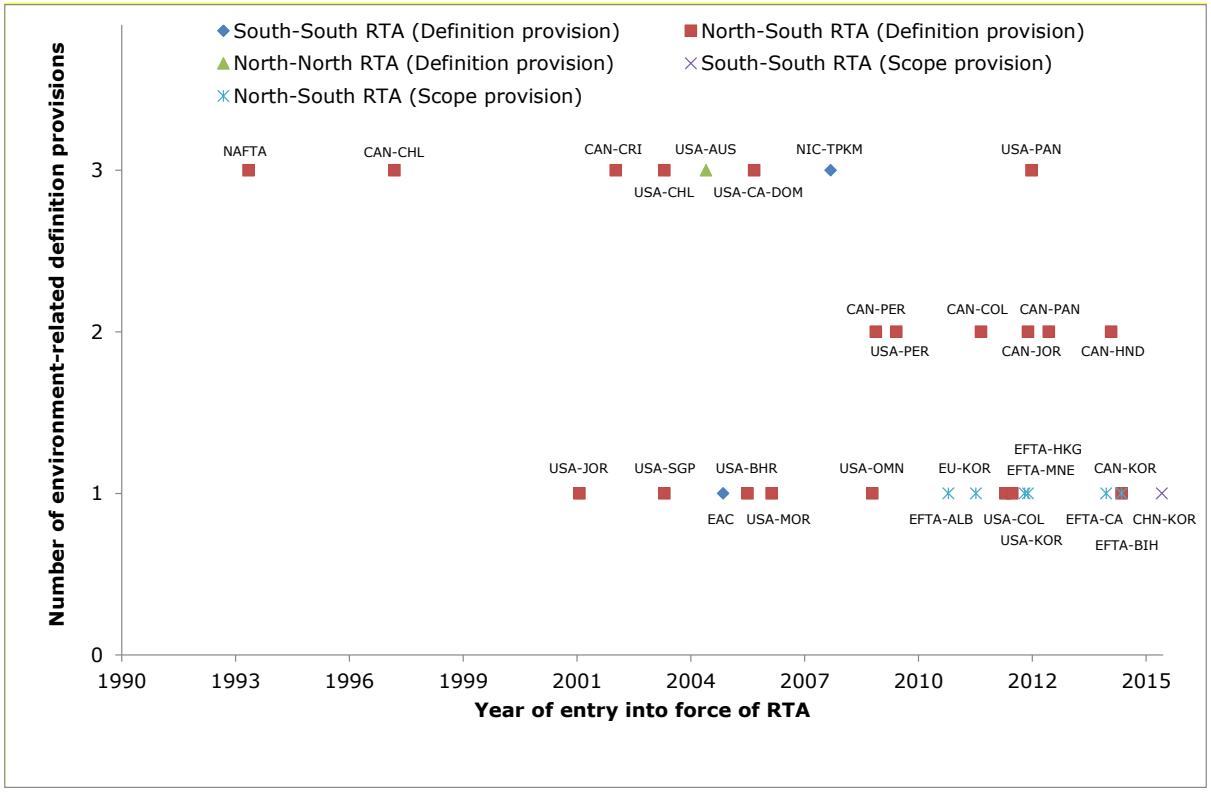
Other provisions call on the parties not to use environmental laws for trade protectionist purposes. The most common environment-related provision allows parties, under specific conditions, to derogate from the RTA's obligations to fulfil environment-related policy objectives. Besides this environmental exception clause, other provisions foresee other exemptions, exclusions and safeguards to enable the parties to implement policies to protect the environment without breaching the RTA's obligations. Similarly, several provisions specify that non-discriminatory regulatory actions designed and applied to protect legitimate public welfare objectives, such as the environment, do not constitute an indirect expropriation. These different types of provisions are discussed in detail below.

5.3.1 Definition/scope of environmental laws

A limited number of RTAs, namely 30 agreements, specify explicitly the scope or the definition of environmental laws and measures covered by the RTA's environment chapter or environmental cooperation agreement. Only six RTAs, including the agreements to which the Republic of Korea is a party with the EU and Turkey and those negotiated by the EFTA states with Montenegro and Hong Kong (China) stipulate that the environment chapter only applies to measures adopted or maintained by the parties affecting trade-related aspects of environmental issues. The RTA between China and the Republic of Korea is also the only notified agreement to specify that the environment chapter applies to measures, including laws and regulations, adopted or maintained by the parties for addressing environmental issues.

As highlighted in Figure 12, another approach adopted in the RTAs to which the United States and Canada are a party, as well as the RTA between Nicaragua and Chinese Taipei defines the term "environmental law" applicable to the environment chapter or environmental side agreement. 16 different definitions of "environmental law" have been identified in the 23 RTAs providing for a specific definition. Environmental law, under these RTAs, is usually defined as any party's law, statute or regulation, or provision thereof, whose primary purpose is protecting the environment or preventing a danger to human life or health.

Figure 12: Evolution of provisions on definition/scope of environmental laws



Source: Computations based on WTO RTA database.

5.3.2 Right to regulate and set the level of environmental protection

The right to regulate environmental issues and set the level of environmental protection is one of the most common types of environment-related provisions, included in 111 RTAs. A specific feature of this type of provisions is the fact that the scope and language used is partly determined by its location in the agreement. Provisions referring to the right to regulate environmental issues are located in the environment chapter on and/or side agreement, but also in the chapters on TBT, SPS measures, investment, and government procurements.

54 RTAs' environment chapter and environmental side agreements explicitly recognize, reiterate or reaffirm the right to regulate and set the level of environmental protection. Similar to other provisions, the language used differs across agreements. The two most common forms, included respectively in 37 RTAs and 38 RTAs, recognizes each party's right to establish its own levels of domestic environmental protection and priorities, and to adopt or modify accordingly its environmental laws, regulations, policies and priorities.

The right to regulate environmental issues can also be found in the TBT chapter of 47 RTAs.[10] In particular, 38 RTAs stipulate that the parties may prepare, develop, adopt, apply or maintain any standards-related measure to ensure fulfilment of their legitimate objectives, which includes the protection of human, animal or plant life or health, and the environment. The NAFTA is the only notified agreement to also include sustainable development in the list of legitimate objectives.

Much like the TBT chapter, the SPS chapter of 42 RTAs mentions explicitly the right to adopt measures aimed at protecting animal and plants health and life. The most common explicit form stipulates that the parties may, in accordance with the RTA's SPS chapter and/or the SPS Agreement, adopt, maintain or apply any sanitary or phytosanitary measure necessary for the protection of animal or plant life or health in its territory.[11]

Other types of provisions related to the right to adopt environment-related measures can be found in the investment chapter of 56 RTAs. The most frequent provision, contained in 45 RTAs, specifies that nothing in the RTA's investment chapter shall be construed to prevent each party from adopting, maintaining, or implementing any measures otherwise consistent with the RTA's investment provisions that it considers appropriate to ensure that investment activity in its territory is undertaken in a manner sensitive to environmental concerns or complying with its environmental legislation. Another type of provisions, referred to as performance requirements and incorporated in the investment chapter of 26 RTAs, stipulates that a measure requiring an investment to use a technology to meet generally applicable environmental requirements shall not be construed to be inconsistent with the prohibition to impose or enforce any requirement to transfer technology, a production process or other proprietary knowledge to a person in its territory, in connection with the investment of an investor of a party or of a non-party in its territory.

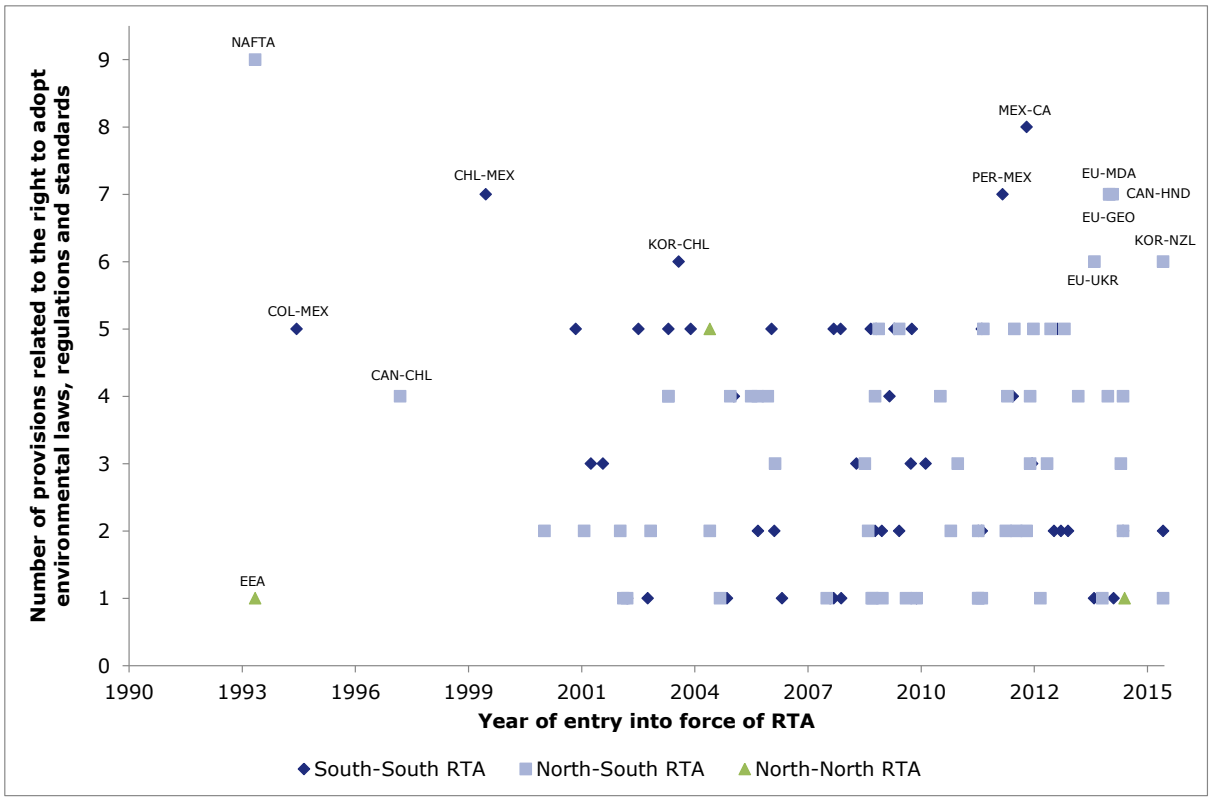
The chapter on government procurement of 31 RTAs contains also a provision specifying that a party's procuring entity, in accordance with the article in question, is not precluded from preparing, adopting, or applying technical specifications to promote the conservation of natural resources and protect the environment.

As highlighted in Figure 13, the NAFTA is the agreement with the highest number of provisions related to the right to adopt environmental laws, policies and regulations. These provisions are found in the chapters on agriculture and SPS measures, standards-related measures and investment, as well as in its associated environmental cooperation agreement. Other RTAs to which the United States and Canada are a respective party incorporate also a relatively high number of provisions on the right to regulate environmental issues. Similarly, the RTAs between Nicaragua and Chinese Taipei and between Mexico and a number of countries in Central and Latin America include a relative large number of such provisions. The different categories of provisions related to the right to adopt environmental measures are discussed in greater details next.

[10] While 47 RTAs refer explicitly to the right to adopt measures necessary to protect the environment, 124 RTAs recognize implicitly such right, by referring to or incorporating the respective rights and obligations pursuant to the TBT Agreement. In its preamble, the TBT Agreement recognises that country should not be prevented from taking measures necessary for the protection of animal or plant life or health, or of the environment, at the levels considered appropriate, provided such measures are not arbitrarily or unjustifiably discriminatory or disguised restrictions on international trade. TBT Agreement Article 2.2 further recognizes the protection of human, animal or plant life or health, and the protection of the environment as being legitimate objectives for countries to pursue.

[11] Just like in the TBT chapter, a large number of RTAs, namely 130 agreements, refer implicitly to the right to adopt measures necessary for the protection of animal or plant life or health by (re)affirming, confirming, incorporating, applying or abiding by the parties' existing rights and obligations established under the SPS Agreement.

Figure 13: Evolution of provisions related to the right to adopt environmental laws



Source: Computations based on WTO RTA database.

5.3.3 High level of environmental protection

Besides the right to establish the levels of environmental protection and adopt measures to protect the environment, most environment chapters and environmental cooperation agreements incorporate provisions referring to high level of environmental protection. The syntax of these provisions, contained in 41 RTAs, varies from best endeavour to stronger language. In 21 RTAs, the provision requires the parties to strive, seek or endeavour to ensure their domestic laws and policies provide for and encourage high levels of environmental protection requires the parties to strive to ensure their domestic laws and policies provide for and encourage high levels of environmental protection. Another provision, mentioned in 20 RTAs, goes further by stipulating that each party shall ensure that its laws and policies provide for high levels of environmental protection. In a number of RTAs, these provisions refer explicitly to a high level of environmental protection consistent with internationally recognised standards and MEAs.[12]

5.3.4 Improvement of environmental protection

The provision related to the commitment of high level of environmental protection is often complemented by a provision referring to the development and improvement of the parties' environmental laws, regulations and policies. The language of this type of provisions, included in 45 RTAs, varies across agreement. The most common form, mentioned in 30 RTAs, calls on the parties to strive to continue to improve the level of environmental protection afforded in their environmental laws, regulations and policies.

[12] See section 6.4 on provisions related to multilateral environmental agreements.

5.3.5 Adoption of environmental laws

A limited number of RTAs, namely 10 agreements, include provisions calling the parties to adopt environmental laws and policies. Most of these provisions are idiosyncratic or incorporated in a couple of agreements. For instance, the RTA between the Dominican Republic and Central America includes an article in the TBT chapter specifying that each party shall regulate, in accordance with its legislation, the introduction, acceptance, storage, transportation and transit of hazardous substances which, by their nature, constitute a danger to the environment. Under the RTAs to which the EU is a party with Albania, Montenegro, Bosnia and Herzegovina and Serbia, the parties shall endeavour to introduce standards on gaseous and particulate emissions and noise levels for heavy goods vehicles. The Economic Agreement between the Gulf Cooperation Council (GCC) States stipulates that the parties shall adopt integrated policies in all phases of oil, gas, and minerals industries to achieve optimal exploitation of natural resources, while taking into account environmental considerations and the interests of future generations. More recently, the RTA between Peru and the Republic of Korea specifies that the parties shall, within their own capacity, adopt policies and measures on issues such as energy efficiency; environmental technologies and adaptation to climate change.

5.3.6 Enforcement of environmental laws

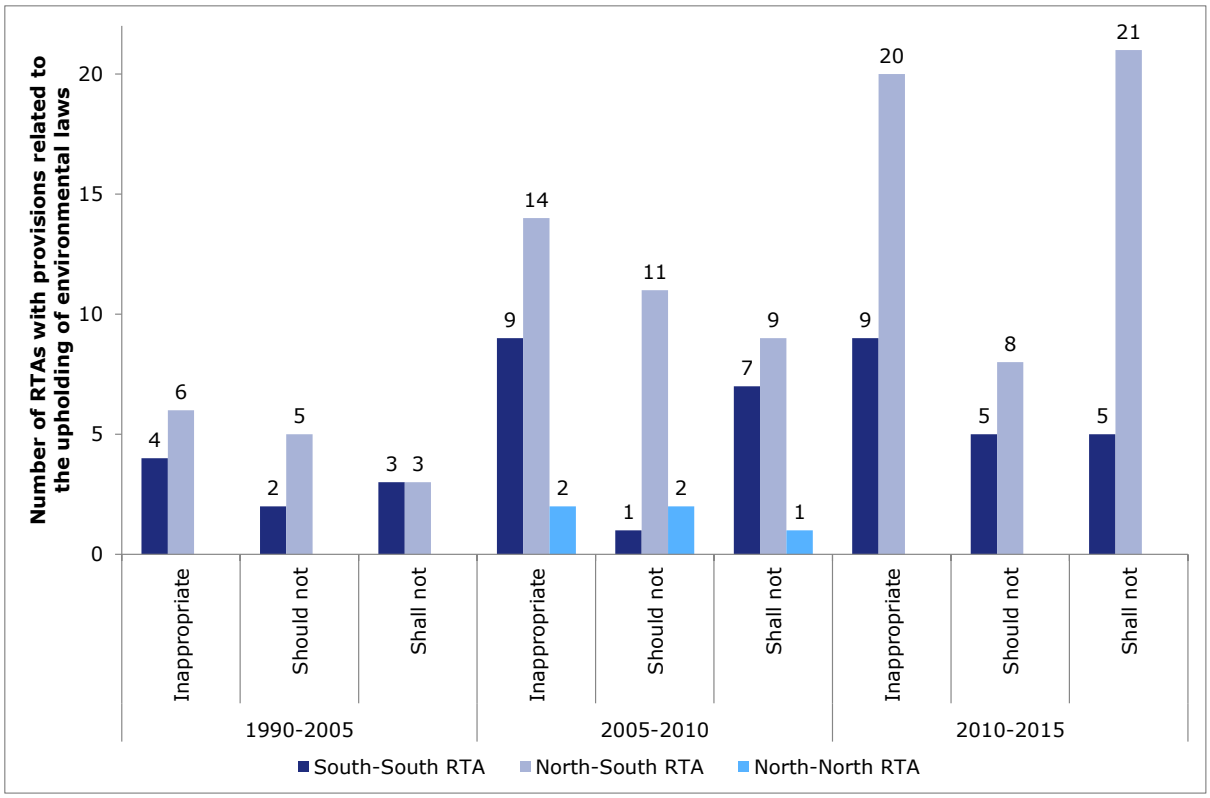
Just like provisions related to the adoption of environmental laws, a limited number of RTAs, namely 11 agreements, incorporate provisions regarding the application and enforcement of environmental laws. Under the RTAs to which Canada is a party with Peru, Colombia, Jordan, Panama and Honduras, the parties affirm their environmental obligations under their domestic law. Another provision, included in 10 RTAs to which the United States and Canada are parties, stipulates that with the aim of achieving high levels of environmental protection and compliance with its environmental laws and regulations, the parties shall effectively enforce their environmental laws and regulations through governmental action. The NAFTA and the agreement between Canada and Chile further specify in their respective environmental cooperation agreements a list of government actions, including appointing and training inspectors, promoting environmental audits and using licenses, permits or authorizations.

5.3.7 Upholding of environmental laws

Beyond the promotion of high levels of environmental protection and the commitment to enforce environmental laws, one of the most common types of provisions on domestic environmental laws, incorporated in 78 RTAs, refers to the uphold of environmental laws. While most provisions on enforcement of environmental laws apply to both trade and investment (in 50 RTAs), some provisions relate either only to investment (44 RTAs) or to trade (10 RTAs). Similar to the other types of provisions discussed previously, the language and scope of this type of provisions vary significantly, with more than 55 different forms of provisions, often idiosyncratic or incorporated in a limited number of RTAs.

The most frequent provisions related to environmental laws enforcement, found in 64 RTAs, recognizes or agrees that it is inappropriate to encourage investment and/or trade by relaxing or weakening or reducing (the protections afforded in) domestic environmental law. Another provision, included in 34 RTAs, stipulates that the parties should not, may not or shall strive to ensure that they do not, waive or otherwise derogate from, or offer to waive or otherwise derogate from their environmental laws as an encouragement for trade or/and investments in their territory. An increasing number of RTAs, namely 39 agreements, include a more specific commitment for which the parties shall not waive or otherwise derogate from, or offer to waive or otherwise derogate from, their environmental laws as an encouragement for investments or trade in their territory. Another firmer commitment, incorporated in 30 RTAs, specifies that the parties shall not fail to effectively enforce their environmental laws in a manner affecting trade or investment between the parties. In some RTAs, this commitment not only applies to environmental laws but also to laws, regulations and measures aimed at fulfilling the obligations of a list of covered MEAS.

Figure 14: RTAs with provisions related to upholding environmental laws[13]



Source: Computations based on WTO RTA database.

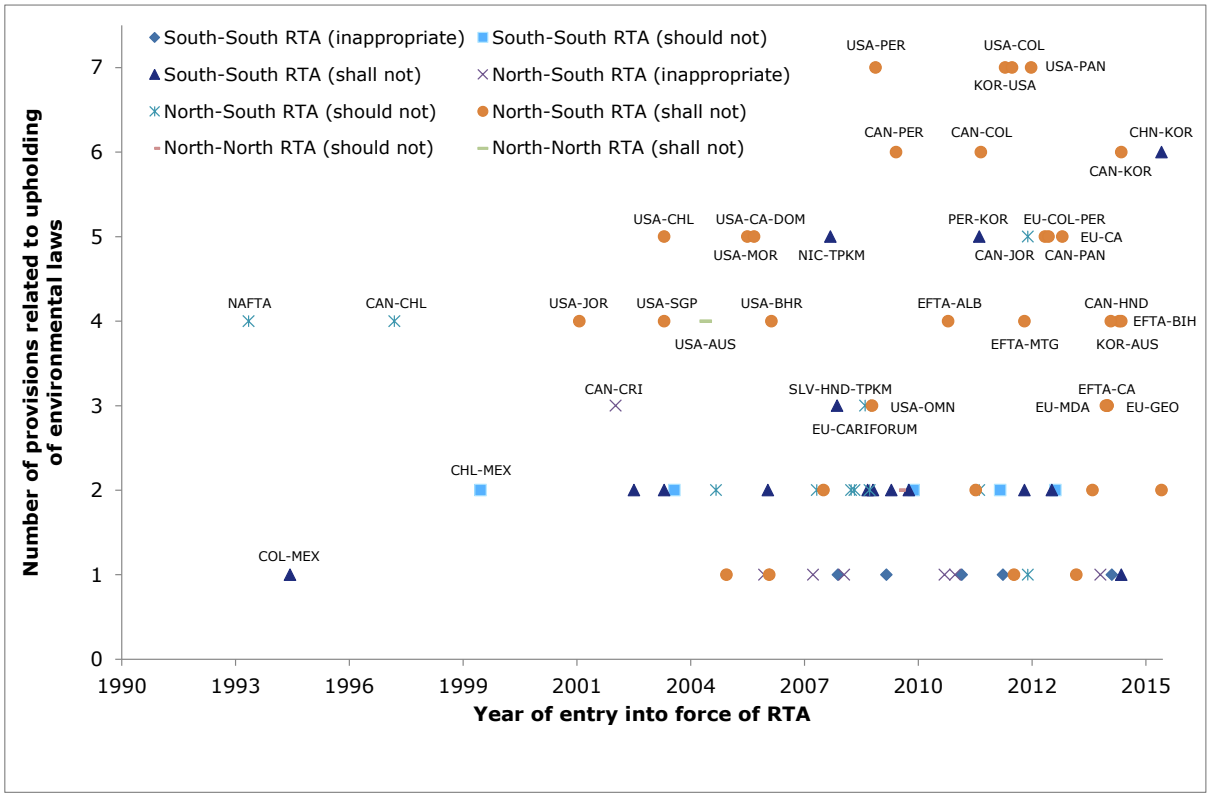
Arguably, concerns about pollution havens (i.e. the relocation to countries with laxer environmental stringency) and race to the bottom (i.e. temptation by countries to attract investment by setting lax environmental laws and/or not enforcing them) partly underpin the growing trend to include provisions related to upholding environmental laws. The objective of such provision is to ensure a "level playing field" between the parties to the RTA, even though the level and stringency of domestic environmental laws can remain different. This seems to be corroborated by Figure 14, which shows that 51 North-South RTAs (48% of notified North-South RTAs) incorporate provisions related to upholding environmental laws enforcement, while only 25 South-South RTAs (17% of notified South-South RTAs), and just two North-North RTAs (12% of notified North-North RTAs), namely the RTAs between the United States and Australia and Japan and Switzerland, incorporate such provisions. Not only the number of North-South RTAs with provisions regarding the upholding of environment laws is higher, but the language of the enforcement provisions in many of these RTAs is also stronger. As will be discussed in the section on dispute settlement procedures, in a number of RTAs the commitment to not fail to effectively enforce environmental laws is the only covered environment-related provision in the RTA through either the investor-state or state-state dispute settlement mechanisms.

In some RTAs, other provisions complement the commitment to uphold environmental laws. For instance, 15 RTAs recognize that each party retains the right to exercise discretion with respect to investigatory, prosecutorial, regulatory and compliance matters and to make decisions regarding the resources allocation to enforcement, with respect to other environmental laws determined to have higher priorities. Eleven agreements further specify the parties' understanding that a party has not failed to "effectively enforce its environmental laws" in a particular case where the action or inaction in question reflects a reasonable exercise of discretion in respect of investigatory,

[13] The abbreviations read as follows: (1) "inappropriate… to encourage trade or investment by relaxing / lowering / weakening / reducing / failing to enforce domestic environmental laws"; (2) "should not / may not / will not… reduce / weaken / lower / waive / (otherwise) derogate from / exempt / fail to (effectively) apply / eliminate domestic environmental laws"; (3) "shall not… reduce / weaken / waive / (otherwise) derogate from / exempt / fail to (effectively) apply / eliminate domestic environmental laws". Note that few RTAs include these three types of provisions.

prosecutorial, regulatory or compliance matters; or results from bona fide decisions to allocate resources to enforcement in respect of other environmental matters determined to have higher priority. 20 RTAs also confirm that each party conserve its sovereignty on enforcement matters by stressing that nothing in the RTA or associated environmental cooperation agreement shall be construed to empower a party's authorities to undertake environmental law enforcement activities in another party's territory.

Figure 15: Evolution of provisions related to upholding environmental laws[14]



Source: Computations based on WTO RTA database.

As depicted in Figure 15, the NAFTA is the first agreement to ever stipulate in the investment chapter that it is inappropriate to encourage investment by relaxing domestic environmental measures and that no party should waive or otherwise derogate from, or offer to waive or otherwise derogate from, such measures as an encouragement for the establishment, acquisition, expansion or retention in its territory of an investment of an investor. All post-NAFTA RTAs negotiated by the United States include such provisions, although the language is sometimes amended. The RTAs to which the United States is a party with Peru, the Republic of Korea, Colombia and Panama display the highest number of provisions on upholding and enforcing environmental laws. These four RTAs recognize that it is inappropriate to encourage trade or investment by weakening or reducing the environmental protection, and accordingly request the parties not to waive or otherwise derogate, or offer to do so, from their environmental laws in a manner that weakens or reduces their environmental protection in a manner affecting trade or investment. The parties further are committed to not fail to effectively enforce their environmental laws and regulations to fulfil their obligations under covered MEAs, through a sustained or recurring course of action or inaction, in a manner affecting trade or investment, after the RTA's date of entry into force. The parties recognize the right of each party to exercise prosecutorial discretion and make decisions regarding the environmental enforcement resources allocation, and stress that a course of action or inaction relating to measures aimed at fulfilling the obligations of covered MEAs should be relevant to determine whether an allocation of resources is reasonable

[14] ibid.

and *bona fide*.[15] The four RTAs further explains that the commitment of not failing to effectively enforce the environmental laws does not apply to waivers or derogations implemented pursuant to a provision in law, provided these waivers or derogations are not inconsistent with a party's obligations under a covered MEA. Finally, the parties confirm also that nothing in the RTA's environment chapter shall be construed to empower a party's authorities to undertake environmental law enforcement activities in the territory of another party.

All post-NAFTA RTAs to which Canada is a party, with the exception of the agreement with the EFTA states, include at least one provision related to upholding environmental laws, either in the chapter on investment and/or environment, or the associated environmental cooperation agreement. With the exception of the agreements negotiated with the EFTA states, the EU, Israel and Uruguay, all post-NAFTA RTAs negotiated by Mexico also provide in their investment chapter an article on environmental measures in which each party is committed or encouraged not to eliminate or undertake to exempt its environmental measures as an encouragement for investments in their territory. The RTAs between Nicaragua and Chinese Taipei, and between Peru and the Republic of Korea are the South-South agreements with the highest number of different provisions regarding the uphold of environmental laws.

5.3.8 Harmonization of environmental laws

Harmonization of environmental laws, policies, regulations, standards and practices is a type of environment-related provisions that has been considered in a limited number of RTAs, namely 39 agreements.[16] Only two RTAs, to which the Republic of Korea is a party with the EU and Turkey, explicitly recognise that the parties, under the RTA's chapter on sustainable development, do not have any intentions to harmonize their environment standards. Conversely, the remaining 42 RTAs lay down provisions related to environmental laws harmonization. Most of these provisions referring to harmonization are idiosyncratic or included in a couple of RTAs, ranging from the recognition of the importance of harmonization to commitments to adopt harmonized environmental laws, regulation and standards and cooperation activities to achieve this harmonization.

The notion, scope and depth of these harmonization commitments differ across agreements, with different concepts and terms being used: harmonization, common policies, coordination, consistency, compatibility, alignment, and approximation.[17] Although some provisions are not strictly speaking about harmonization, they are all aimed at achieving some kind of coherence among the parties. Similarly, these harmonization provisions refer to various types of instruments, namely environmental legislation, laws, policies, regulations, incentives, actions, orientations, mechanisms, programmes, guidelines, strategies, and standards. The harmonization benchmark differs also across RTAs, with most provisions endorsing regional harmonization and only a few provisions referring to international harmonization. In several RTAs with comprehensive provisions on harmonization, provisions establishing cooperative activities complement the harmonization commitments.

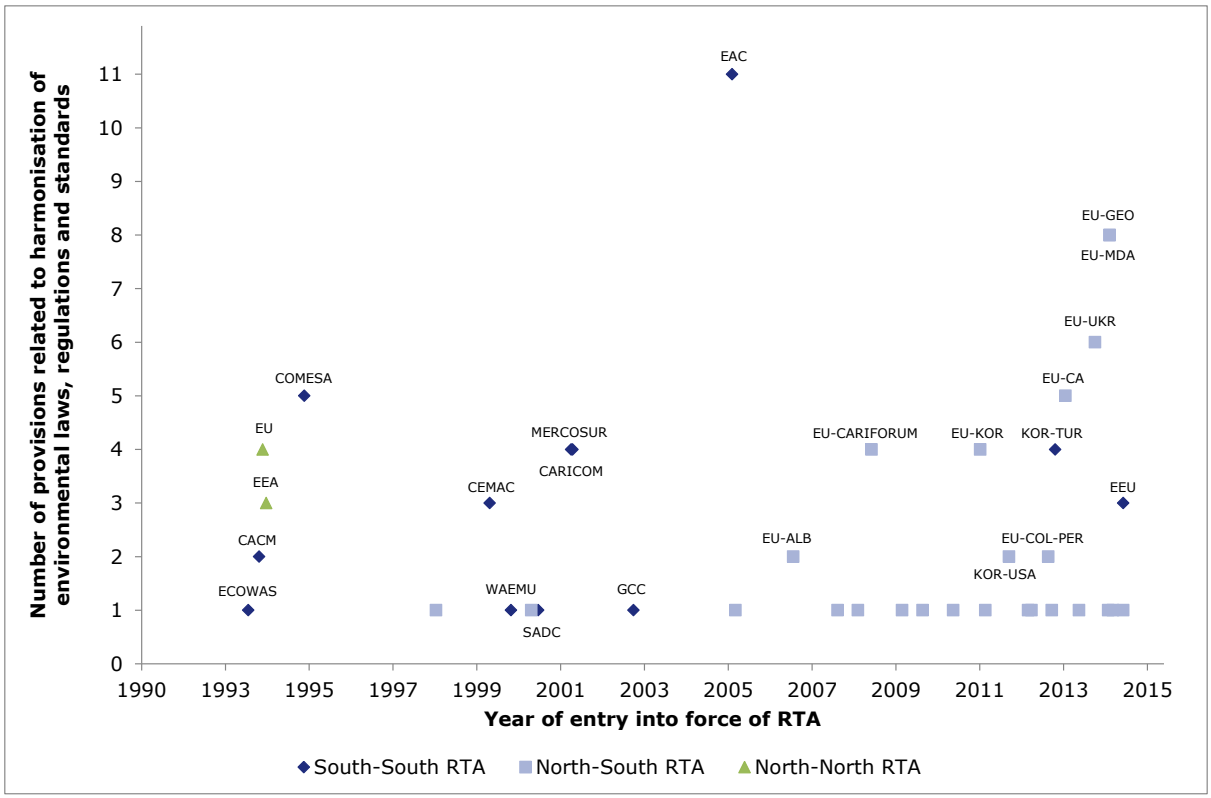
As highlighted in Figure 16, the RTAs aimed at reinforcing regional integration, typically customs unions, tend to incorporate the most detailed provisions on harmonization of environmental laws, policies, regulations, and standards. Most of these provisions are idiosyncratic, making it particularly difficult to highlight commonalities.

[15] This provision plays also an important role if an alleged breach of the obligation to implement covered MEAs was to be brought to the RTA's dispute settlement procedures. See section 5.12 for more details.

[16] This number does not take into account provisions related to harmonization included in the chapters on SPS measures and/or TBT, because these provisions are not specific to the environment, unless specified otherwise.

[17] Provisions related to the consistency with international environmental commitments or MEAs are discussed below.

Figure 16: Evolution of provisions related to environmental laws harmonization



Source: Computations based on WTO RTA database.

The Protocol on the Establishment of the EAC Common Market is the RTA with the highest number of environment-related harmonization provisions incorporated in the cooperation chapters on infrastructure and services, environment and natural resources management, and tourism and wildlife management. The parties agree to develop a common environmental management policy, to take measures to control transboundary air, land and water pollution, and to adopt common policies and regulation for the conservation of their natural resources. The parties also undertake to cooperate and adopt common environment control regulation, incentives and standards, including common policies for the control of transboundary movement of toxic and hazardous waste and a common position against illegal dumping of toxic chemicals, substances and hazardous wastes. The agreement also requires the parties to harmonize their policies for the conservation of wildlife, within and outside protected areas. The EAC's Protocol on Environment and Natural Resources Management also contains a number of provisions committing the parties to seek to harmonize their environmental policies, laws and strategies in their national jurisdictions, including jointly developing and adopting harmonized common policies and strategies related to the management of transboundary natural resources, biological diversity, fisheries, water and mineral resources.

Similarly, a number of provisions related to the coordination and adoption of common environmental measures can be found in the Agreement establishing the Common Market for Eastern and Southern Africa (COMESA), the Caribbean Community and Common Market (CARICOM), the Framework Agreement on the Environment of MERCOSUR, the Convention Governing the Economic Union of Central Africa (CEMAC), the West African Economic and Monetary Union (WAEMU), the Central American Common Market (CACM) agreement, and the revised Treaty of the Economic Community of West African States (ECOWAS).

A few RTAs explicitly specify that environmental measures being developed and adopted at the regional level constitutes the minimum level of environmental protection. For instance, the Economic Agreement between the Gulf Cooperation Council (GCC) States calls on the parties to adopt policies and mechanisms necessary to protect the environment according to all relevant legislation and resolutions adopted within the GCC framework, as representing the minimum level of national rules and legislation. Similarly the EU Treaty, the European Economic Area (EEA)

Agreement, and the Protocol on the Establishment of the East African Community (EAC) Common Market specify that nothing in the agreement prevents or precludes any party from maintaining or introducing more stringent environmental measures compatible with the RTA.

Several RTAs, such as the EEA agreement and the recent association agreements between the EU and the Republic of Moldova, Ukraine and Georgia, include provisions committing the non-EU parties to gradually approximate their legislation related to the environment and climate change. The annexes of these RTAs list the relevant EU legislation and regulations, covering various environment-related issues, such as environmental governance and integration of environment into other policy areas, air quality, water quality and management, waste management, nature protection, industrial pollution and hazards, chemicals, climate change and ozone layer protection.

A specific article on "regional integration and use of international environmental standards" is included in the CARIFORUM-EU Economic Partnership Agreement's environment chapter stipulating that the parties agree to seek to adopt and implement relevant international standards, guidelines or recommendation, where practical and appropriate, in the absence of relevant national or regional environmental standards. The agreement also includes in the section on tourism services a specific article on environmental and quality standards committing the parties to encourage compliance with environmental standards applicable to tourism services in a reasonable and objective manner, without constituting unnecessary barriers to trade. The article further calls on the parties to endeavour to facilitate CARIFORUM states' participation in relevant international organisations setting environmental standards applicable to tourism services.

5.3.9 Principles of environmental laws

A limited number of RTAs, namely 29 agreements, include provisions regarding principles related to environmental laws, policies, regulations, standards and practices.[18] With a few exceptions, most provisions on principles of environmental laws are specific to a single or couple of RTAs. In addition, the same principle is sometimes addressed through best-endeavour language in some agreements and firmer language in others.

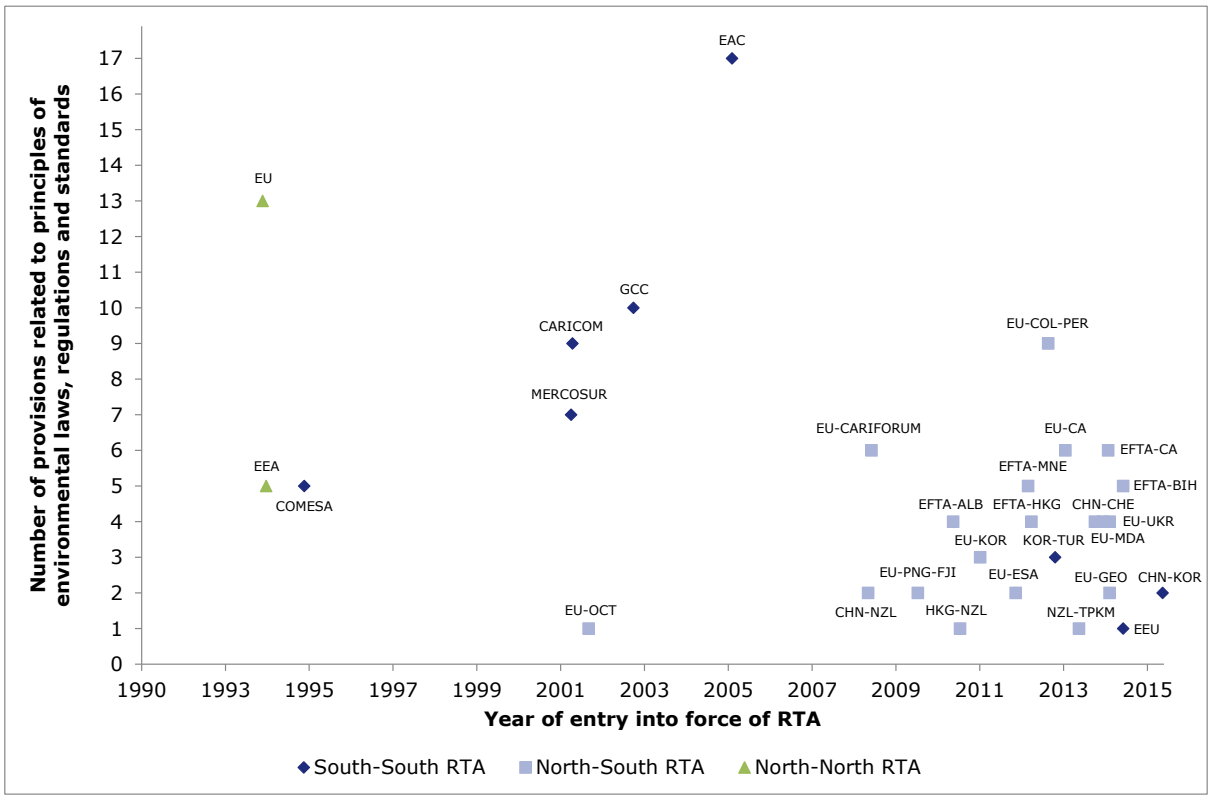
13 agreements reaffirm the parties' commitment to ensure that the objective of sustainable development is integrated and reflected in the parties' trade relationship. Such provision is often complemented by another provision, included in 11 RTAs, reaffirming the parties' commitment to promote the development of international trade in such a way as to contribute to the objective of sustainable development. The RTAs to which New Zealand is a party with China and Chinese Taipei recognise that the primary purpose of the parties' environmental laws, regulations, policies and practices should be to achieve environmental objectives and that these should be administered in a way that contributes to the mutual supportiveness of these and other policies to achieve sustainable development.

The most frequently mentioned principle, included in 15 agreements, refers to the importance, when preparing and implementing measures related to the environment, of taking account of scientific, technical and other information, and relevant international guidelines. In 11 RTAs, this provision applies specifically to environmental measures affecting trade (and investment) between the parties. The agreements negotiated by the EU with Colombia and Peru, and Central America further acknowledge that, where there are threats of serious or irreversible damage, the lack of full scientific certainty should not be used as a reason for postponing protective measures. Similarly, the RTAs to which the EU is a party with the CARIFORUM states, the Republic of Moldova and Georgia refer to the precautionary principle when preparing and implementing measures aimed at protecting the environment. The EU agreements with the Republic of Moldova and Georgia are the only notified RTAs to stipulate that the parties shall take account of available scientific and technical information, and relevant international standards, guidelines or recommendations if they exist. Other principles explicitly mentioned in RTAs include preventive action (7 RTAs), rectification at source (6 RTAs) and polluter pays (6 RTAs).

[18] This number does not take into account provisions related to public participation and transparency, which are discussed in sections 5.8.1 and 5.8.2 .

As highlighted in Figure 17, the EAC's Protocol on Environment and Natural Resources Management is the RTA with the highest number of different provisions related to principles of environmental law. A dedicated article on principles stipulates that the parties undertake to observe a list of principles of environment and natural resources management, including the principle of the fundamental right of the people to live in a clean and healthy environment; the principles of polluter pays and user pays; the principle of prevention of significant harm; the precautionary principle; and the principle of inter generation and intra generation equity. Similarly, the text of the General Regulations of Environment in the GCC States mentions a number of basic rules, such as the recommendation to use the best available technologies to control pollution and prevent environmental deterioration in all new facilities and projects and in any major change in an existing project. Other RTAs with a relatively high number of provisions referring to principles of environmental laws involve mainly the EU and EFTA states.

Figure 17: Evolution of provisions related to principles of environmental laws



Source: Computations based on WTO RTA database.

5.3.10 Economic and voluntary environmental performance mechanisms

A limited number of RTAs, namely 28 agreements, incorporate provisions encouraging parties to use and rely on economic instruments and voluntary actions to protect the environment. All of these provisions are couched in a best endeavour language, promoting the development and adoption of such mechanisms. Out of the 28 RTAs, the environmental cooperation agreements associated with the NAFTA and the RTA between Canada and Chile are the only notified agreement to explicitly call on the parties to promote the use of economic instruments for the efficient achievement of environmental goals.

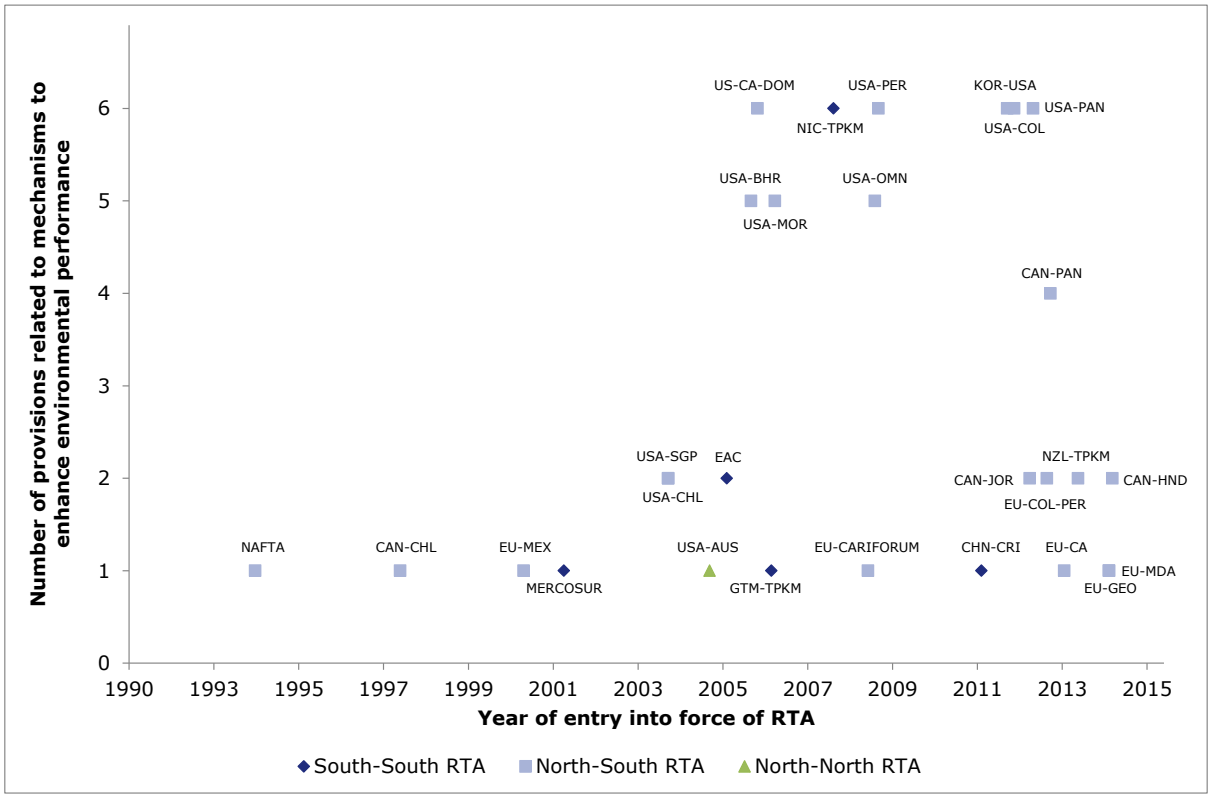
The remaining 26 RTAs cover mainly voluntary mechanisms. 17 agreements recognize that incentives and other flexible and voluntary (and market-based) mechanisms can contribute to the achievement and maintenance of (high levels of) environmental protection (complementing the environmental laws' enforcement proceedings). These same 17 RTAs further call on the parties to encourage, as appropriate and in accordance with their law, the development of such mechanisms. Nine of these RTAs also establish an indicative list of voluntary mechanisms, including (i) private-public-partnerships; (ii) voluntary guidelines for environmental performance; (iii) sharing of

information concerning for instance voluntary environmental auditing and reporting, environmental monitoring and collection of baseline date; and (iv) incentives, including market-based incentives, such as public recognition of superior environmental performance or programs for exchanging or trading permits, credits or other instruments. In addition, 12 of these RTAs call on each party to encourage, as appropriate and in accordance with its law, the maintenance, development and improvement of environmental performance goals and indicators or standards. Nine of these 12 RTAs further commit the parties to encourage flexibility in the means to achieve such goals and meet such standards.

More recently, the RTA between New Zealand and Chinese Taipei stipulates that each party should encourage businesses and business organisations, non-governmental organisation and other interested persons developing or applying voluntary environmental goals or standards, including labelling to do so in a manner that follows a number of principles. In particular, these voluntary environmental goals or standards should be (1) transparent; (2) not have the effect of creating unnecessary obstacles to trade; (3) not constitute a means of arbitrary or unjustified discrimination between the parties; and (4) be based, where appropriate, on internationally recognized standards, recommendations or guidelines.

As highlighted in Figure 18, the inclusion of detailed provisions on voluntary mechanisms is a relatively recent phenomenon. Some of the RTAs negotiated by the United States, Canada, and more recently the EU, incorporate the highest number of provisions related to voluntary mechanisms. Similarly, the agreement between Nicaragua and Chinese Taipei is the south-south RTA with the highest number of different provisions on voluntary mechanism. The agreement contains several provisions promoting incentives and other flexible and voluntary mechanisms, as well as the maintenance, development or improvement of performance goals and indicators used in measuring environmental performance. The annex of the chapter on environment defining the program of cooperation areas further mentions activities related to developing and promoting incentives and other flexible and voluntary mechanism, including the development of market-based initiatives and economic incentives for environmental management.

Figure 18: Evolution of provisions related to economic and voluntary mechanisms



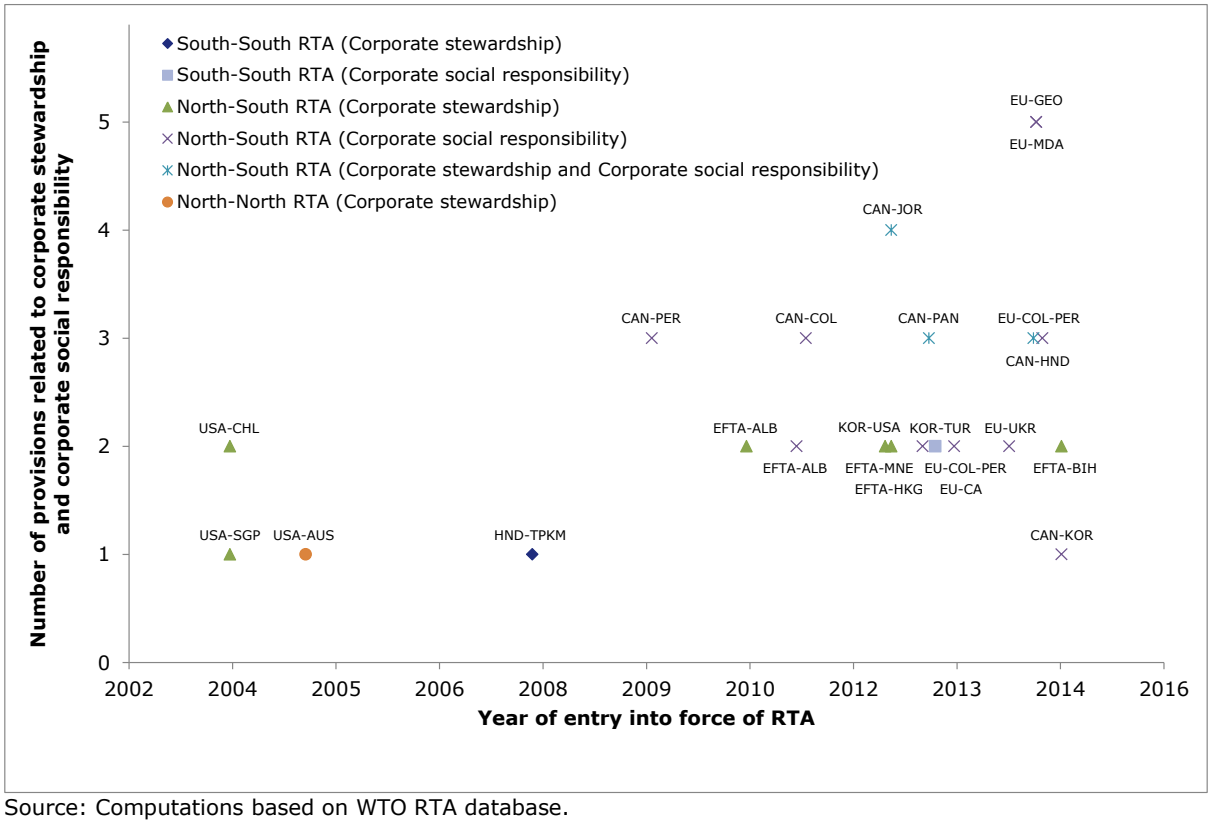
Source: Computations based on WTO RTA database.

5.3.11 Corporate stewardship or corporate social responsibility

The emergence of provisions promoting either corporate environmental stewardship or corporate social responsibility is a relatively recent phenomenon, with only 22 agreements incorporating such provisions. The language of these provisions, found in the preamble, chapters on investment, labour or environment, or in environmental side agreements, varies across agreements and ranges from best endeavour language to relatively firmer commitments.

One of the most common provisions, included in the RTA negotiated by Canada with Peru, Colombia, Panama, the Republic of Korea, and Honduras, specifies that the parties should encourage voluntary best practices of corporate social responsibility by enterprises within their territories or jurisdictions, to strengthen coherence between economic and environment objectives. This provision further explains that these principles address various issues, including the environment, community relations and anti-corruption, and calls on the parties to remind those enterprises of the importance of incorporating such corporate social responsibilities standards in their internal policies. Similarly, the agreements signed by the United States with Chile and Singapore and the RTA between Nicaragua and Chinese Taipei invite the parties to encourage enterprises operating within their territory or jurisdiction to voluntarily incorporate sound principles of corporate stewardship in their internal policies, such as those principles or agreements endorsed by both parties. More recently, and as discussed below in greater details, an increasing number of RTAs include provisions promoting trade of environmental goods and services. Among these RTAs, the agreements between the Republic of Korea and Turkey and the ones to which the EU is a party with the Republic of Korea, Central America and Ukraine include a provision calling the parties to strive or endeavour to facilitate and promote trade in goods that contribute to sustainable development, including goods that are the subject of schemes such as those involving corporate social responsibility and accountability.

Figure 19: Evolution of provisions on corporate stewardship and social responsibility



Source: Computations based on WTO RTA database.

As depicted in Figure 19, provisions on corporate stewardship and corporate social responsibility are included in RTAs involving mainly Canada, the EU, the United States and the EFTA states. The highest number of provisions on corporate social responsibility is found in the agreements to which the EU is a party with the Republic of Moldova and Georgia. Under both RTAs, the parties shall promote corporate social responsibility and accountability and encourage responsible business practices. The parties further agree to promote corporate social responsibility, including through the exchange of information and best practices. In that regard, they refer to the relevant internationally recognised principles and guidelines, such as the OECD Guidelines for Multinational Enterprises, and the UN Global Compact. Another provision also lists the promotion of corporate social responsibility as a cooperation area, for instance through actions concerning awareness raising, adherence, implementation and follow-up of internationally recognised guidelines and principles.

5.3.12 Environmental impact assessment of projects/activities

Provisions related to environmental impact assessments are incorporated in a limited but increasing number of RTAs, namely 32 agreements.[19] Environmental impact assessment can be defined as analytical processes of identifying, forecasting and estimating the possible (positive and negative) environmental impacts of the implementation of particular projects, programmes and policies. Similar to other types of provisions, provisions referring to environmental impact assessments are particularly heterogeneous.

The NAFTA is the first RTA to include in its environmental cooperation agreement, a provision stipulating that each party shall, with respect to its territory assess, as appropriate, environmental impacts. A similar provision was incorporated in the environmental cooperation agreement associated with the RTA between Canada and Chile. Another provision, worded slightly differently and found in the respective environmental cooperation agreements associated with the RTAs to which Canada is a party with Peru, Colombia, Jordan, Panama and Honduras, specifies that each party shall ensure that it maintains appropriate procedures for assessing the environmental impacts of proposed projects which may cause significant adverse effects on the environment, with a view to avoiding or minimizing such adverse effects include. This provision is complemented by the commitment that each party shall ensure that its environmental assessment procedures provide for the disclosure of information to the public concerning proposed projects subject to assessment. In addition, and, in accordance with its law, each party shall allow for public participation in these environmental assessment procedures. Other provisions related to the implementation, and in some cases harmonization, of environmental impact assessments procedures are included in the EU, MERCOSUR, and EAC. As discussed next in section 5.10.2 , a small but increasing number of RTAs incorporate also provisions related to the *ex-post* review of the impact of the RTA on the environment. The remaining other provisions on environmental impact assessment, included in 17 RTAs, are mainly designed to promote their use through cooperation.

5.3.13 Environmental laws not for trade protectionist purposes

A limited but increasing number of RTAs, namely 18 agreements, refer to the prohibition to use environmental laws for trade protectionist purposes. Similar to the other types of environment-related provisions, the scope and language differ across agreements. While certain provisions, included in 4 RTAs, mention only environmental standards, other provisions, incorporated in 14 RTAs, refer more broadly to environmental laws, regulations, rules, policies and practices. The RTAs with such provisions involve mainly developing countries, such as Chile, Malaysia and the Republic of Korea, with the exception of New Zealand.

The most common provision, found in 9 RTAs including the agreements to which Chile is a party with Panama, Colombia, Turkey, Malaysia and Hong Kong (China), mentions the parties' agreement or recognition that it is inappropriate to set or use environmental laws for trade protectionist purposes.

[19] This figure does not include RTAs with provisions related to the RTA's environmental impact assessment. See section 5.10.2 for further details.

Another related provision, included in the RTAs negotiated by New Zealand with Thailand, Malaysia and the Republic of Korea, goes further and specifies that the parties will or shall ensure that its environmental laws, regulations, policies and practices shall not be used for trade protectionist purposes. As discussed next in greater details, some of these provisions borrow language from the Article XX on general exceptions of the GATT-1994.

5.3.14 Environment-related exceptions

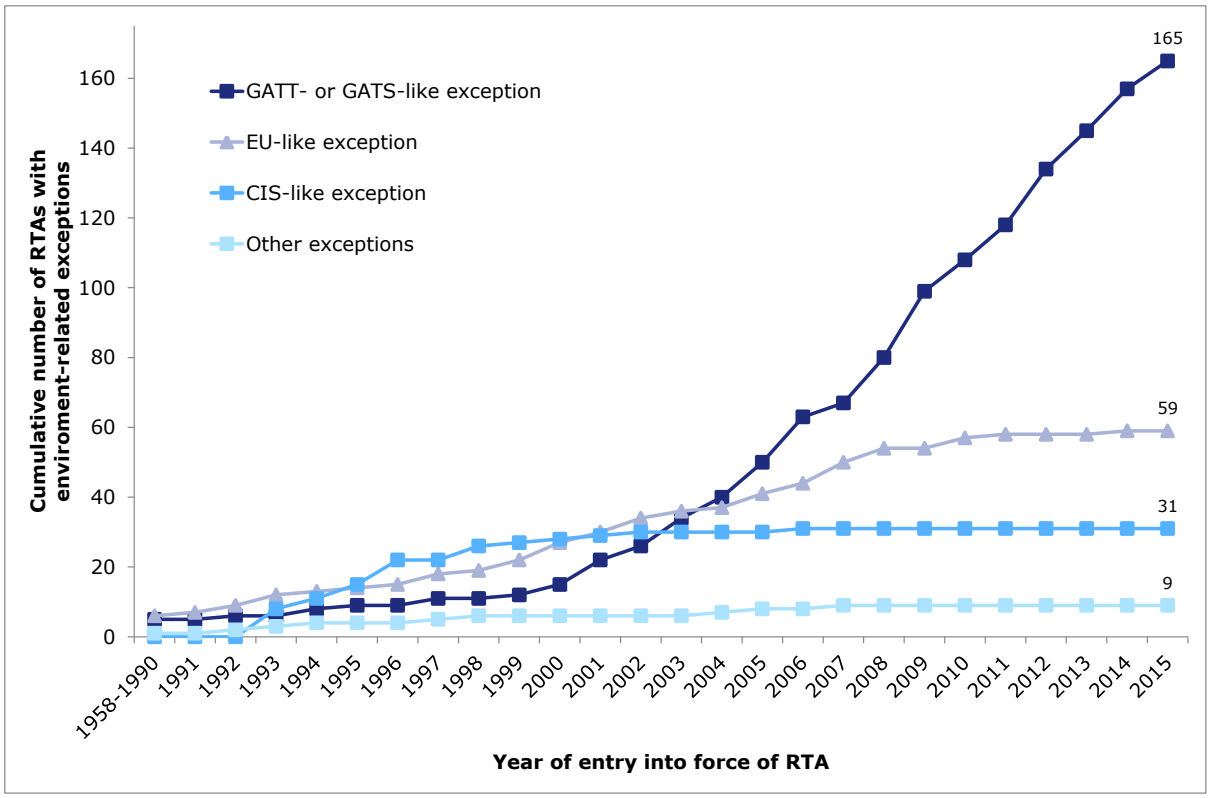
While trade agreements lay down a number of trade obligations to which the parties are subject, most agreements provide for a general exception clause allowing the parties to adopt certain measures that would otherwise be prohibited by the trade agreements' obligations. The analytical review of the 270 notified RTAs reveals that the environmental exception clause enabling the parties to derogate from the general trade obligations under the RTA in order to address environmental objectives is the type of environment-related provisions most frequently incorporated in RTAs. 262 RTAs, representing 97% of the notified RTAs currently in force, include some type of environmental exception, which is usually located in a specific chapter or section dedicated to security and general exceptions (259 RTAs), but also in the chapters on investment (62 RTAs), government procurement (51 RTAs), services (32 RTAs), technical barriers to trade (3 RTAs), movement of natural persons (2 RTAs), capital movements (1 RTA), maritime transport services (1 RTAs) and environment (1 RTA).[20]

A closer look at the language used in these environmental exceptions uncovers significant heterogeneity both in terms of wording and scope. Four broad types of environmental exceptions wording have been identified: (1) exceptions modelled after the GATT-1994 Article XX or GATS Article XIV, with amended or additional wording in some cases; (2) exceptions modelled after Article 36 of the consolidated versions of the Treaty on the European Union and the Treaty on the Functioning of the European Union with amended or additional wording in some cases; (3) exceptions modelled after Article 13 of the Commonwealth of Independent States (CIS) Free Trade Agreement (CISFTA) with amended or additional wording in some cases; and (4) other idiosyncratic exception clauses.

As depicted in Figure 20, environmental exceptions based on the GATT or GATS language, included, respectively, in 162 and 121 RTAs (165 trade agreements altogether), represent by far the most common type of exceptions, although this was not the case before 2004. The number of RTAs with EU- and CIS-like exception has remained constant over the past 5 and 15 years with 59 and 31 agreements, respectively. Only nine RTAs have adopted other different exceptions clauses. The evolution and heterogeneity of each type of exceptions is discussed in greater details below.

[20] Exception clauses can be found in different chapters of the RTA that is why the figures do not add up. The Economic Agreement Between the Arab States of the Gulf (GCC) is the only RTA with environment-related provisions but no explicit environmental exception clause. Eight RTAs do not include any exceptions clause, namely Lao People's Democratic Republic and Thailand Preferential Trading Arrangement; the Russian Federation and Uzbekistan Free Trade Agreement; the South Asian Preferential Trade Arrangement; the Eurasian Economic Community; the Gulf Cooperation Council; the Common Economic Zone; the Free Trade Agreement between Panama and the Dominican Republic; and the Protocol on Trade Negotiations.

Figure 20: Evolution of environmental exception clauses



Source: Computations based on WTO RTA database.

5.3.14.1 GATT- or GATS-like exceptions

The inclusion of a clause establishing exceptions to free trade rules is by far not a recent phenomenon. Negotiated in 1947, GATT Article XX on General Exceptions provides a number of specific instances in which WTO members may be exempted from GATT rules. Two exceptions, namely paragraphs (b) and (g) of Article XX, are most explicitly relevant to environmental protection and read as follows:[21]

> "*Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures*:
>
> (b) *necessary to protect human, animal or plant life or health*;
>
> (g) *relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption*."

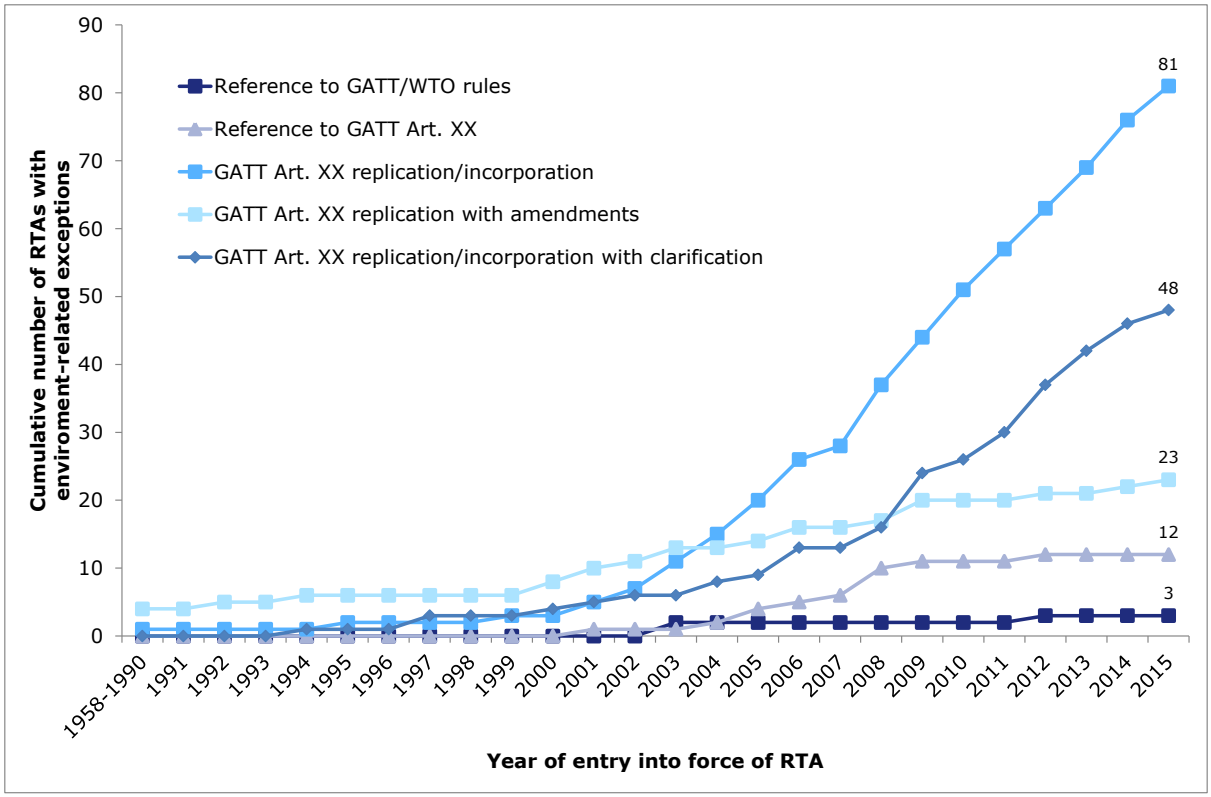
[21] Paragraph (d) of Article XX of GATT, which reads as measures "necessary to secure compliance with laws or regulations which are not inconsistent with the provisions of the [GATT], including those relating to customs enforcement, the enforcement of monopolies […], the protection of patents, trademarks and copyrights, and the prevention of deceptive practices", is another exception that has been invoked in GATT/WTO disputes related to the protection of the environment. More recently, Paragraph (a) of Article XX of GATT covering measures "necessary to protect public moral" was invoked in the European Communities — Measures Prohibiting the Importation and Marketing of Seal Products. The Appellate Body confirmed the Panel's finding that the EU Seal Regime is "necessary to protect public morals regarding seal welfare" within the meaning of GATT-1994 Article XX(a) (See Report of the Appellate Body, WT/DS400/AB/R). Both paragraphs (a) and (d) are not considered in the analysis on the ground that they do not explicitly refer to the environment.

Article XX(b) and (g) allow WTO members to justify GATT-inconsistent environmental measures if the measures are either "necessary" to protect human, animal or plant life or health, or "related to" the conservation of exhaustible natural resources. However, the introductory clause of Article XX (referred to as the chapeau) is designed to ensure that such GATT-inconsistent environmental measures do not result in arbitrary or unjustifiable discrimination and do not constitute a disguised restriction on international trade. General exceptions, similar to the chapeau and paragraph b of GATT-1994 Article XX, are also available within the General Agreement on Trade in Services (GATS Article XIV) and the plurilateral Agreement on Government Procurement (GPA Article XXIII).[22]

5.3.14.1.1 GATT-like exceptions

A detailed analysis of the 162 RTAs with a GATT-like exception reveals that there are more than 60 different versions of the exception clause referring to or reflecting the language of GATT-1994 Article XX. As highlighted in Figure 21, 81 RTAs replicate word for word, or incorporate into the agreement GATT-1994 Article XX. Similarly, 12 RTAs mention explicitly GATT-1994 Article XX, by referring to its compliance or consistency.

Figure 21: Evolution of environmental exception clauses based on GATT Art. XX



Source: Computations based on WTO RTA database.

[22] The WTO Ministerial Decision on Trade in Services and the Environment notes that since measures necessary to protect the environment typically have as their objective the protection of human, animal or plant life or health, it is not clear that there is a need to provide for more than is contained in paragraph (b) of Article XIV. However, WTO members have decided to request the Committee on Trade and Environment to examine and report, with recommendations if any, on the relationship between services trade and the environment in order to determine whether any modification of Article XIV of the Agreement is required.

An increasing number of RTAs, 48 RTAs to be precise, clarify the parties' understanding regarding the fact that the measures referred to in GATT-1994 Article XX(b) include "environmental measures" necessary to protect human, animal or plant life or health, and GATT-1994 Article XX(g) applies to measures relating to the conservation of "living and non-living" exhaustible natural resources. The NAFTA was the first agreement to contain such clarifications, which were later incorporated in the other RTAs negotiated by the United States and Canada, with the exception of the RTA between Morocco and the United States. The RTAs to which the EU is a party with Central America and with Colombia and Peru are the first agreements negotiated by the EU to include such clarifications.[23] Australia, Chile, China, Costa Rica, Mexico, New Zealand, Peru, or Singapore incorporate similar extended exception clauses in their most recent RTAs.

In reality, without explicitly stating it, the incorporation of these clarifications intends to reflect part of the GATT/WTO jurisprudence on the interpretation of GATT-1994 Article XX(b) and (g). For instance, the phrase "exhaustible natural resources" under Article XX(g) has been interpreted broadly to include not only "mineral" or "non-living" resources but also living species which may be susceptible to depletion, such as sea turtles. To support this interpretation, the Appellate Body noted, in the US-Shrimp case, that modern international conventions and declarations made frequent references to natural resources as embracing both living and non-living resources. In particular, the Appellate Body noted that sea turtles were included in Appendix 1 on species threatened with extinction of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), demonstrating the exhaustible character of sea turtles.[24] More recently, in the China-Raw Materials case, the Appellate Body considered that the word "conservation means the preservation of the environment, especially of natural resources".[25]

A limited number of RTAs mimics the general wording of GATT-1994 Article XX with some amended wordings, such as "*provided* that such measures…" instead of "subject to the requirements", "where *like* conditions *must* prevail" instead of "where the same conditions prevail" or "measures which *concern* the conservation…" instead of "measures relating to the conservation". Four RTAs from the Pacific region, namely the Free Trade Agreement between Australia and Papua New Guinea, Australia and New Zealand Closer Economic Relations Trade Agreement, the Melanesia Spearhead Group Trade Agreement, and the Pacific Island Countries Trade Agreement, add the "protection of indigenous flora and fauna" or the "protection of indigenous or endangered animal or plant life" to the list of exception cases.

While very few RTAs, such as the South Asian Free Trade Agreement, do not mention the exception for measures relating to the conservation of natural resources altogether, the Southern African Development Community Free Trade Agreement includes "measures relating to the environment" in addition to the language of GATT-1994 Article XX (g). The Caribbean Community and Common Market Agreement mentions also "measures relating to the preservation of the environment" in its exception clause. However, the structure of its exception clause is inverted; starting with the list of exception cases followed by a requirement of no discrimination or disguised restriction, similar to the wording of the chapeau of GATT-1994 Article XX. The RTAs between the EU and Mexico, Turkey and Morocco, and the South Asian Free Trade Agreement adopt a similar inverted structure.

Finally, three RTAs link their exception clause with the consistency with WTO rules, without explicitly referring to GATT Article XX, and the protection of animals, plants, and conservation of exhaustible natural resources. The RTAs to which China is a party with Hong Kong (China), and Macao (China) stipulate that the ability of the parties to maintain or adopt exception measures consistent with WTO rules is not affected. Similarly, the RTA between Cuba and El Salvador states that neither party shall impose or maintain any non-tariff barriers to trade between parties, except those consistent with GATT-1994 and other WTO agreements.

[23] The EU-Central America RTA comprises Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama.

[24] See the Report of the Appellate Body, WT/DS58/AB/R.

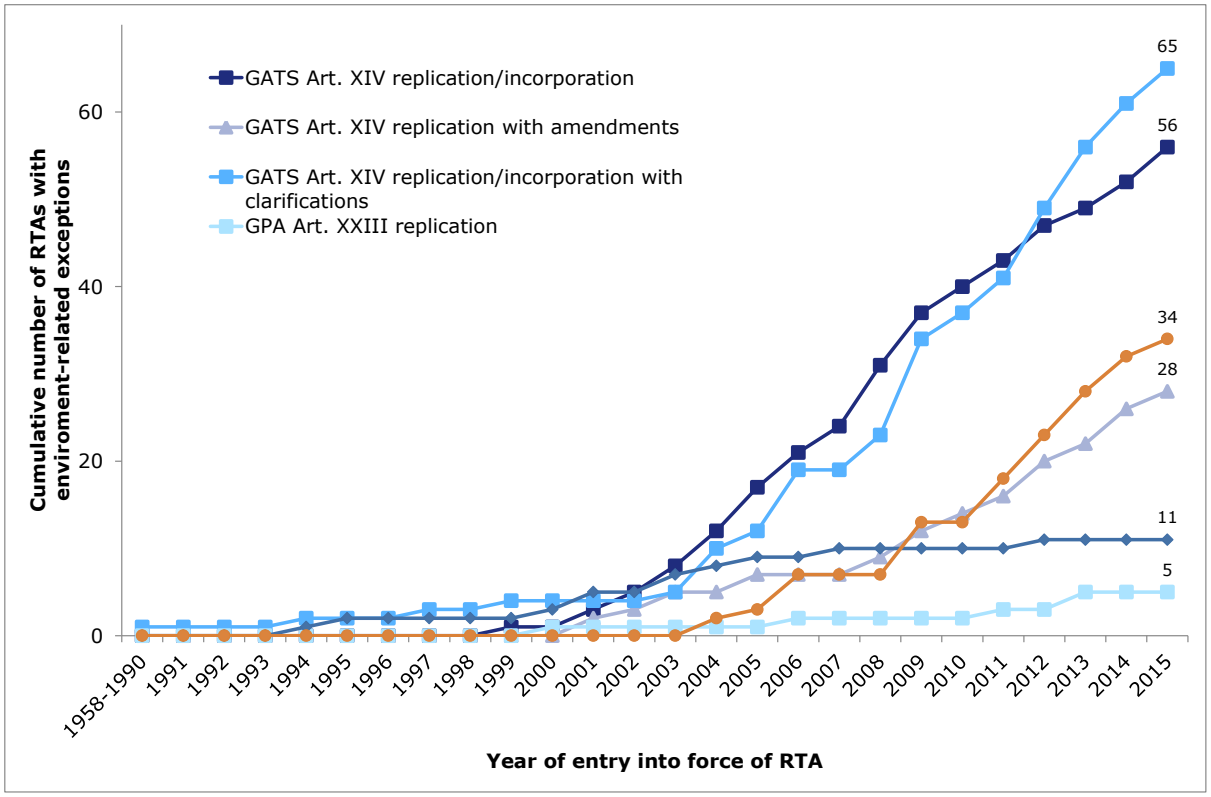
[25] See the Report of the Appellate Body, WT/DS394/AB/R.

5.3.14.1.2 GATS- and GPA-like exceptions

121 RTAs incorporate a GATS-like exception clause, referring to measures necessary to protect human, animal or plant life or health, that applies to trade in services (113 RTAs), but also to investments (60 RTAs) and movement of natural persons (2 RTAs). In addition, 50 RTAs incorporate a GPA-like exception clause to trade associated with government procurements. Similar to the case of GATT-like exception clauses, there is a large variation in the language and scope used, with more than 24 and 16 types of GATS-like exception clauses applied to trade in services and investments, respectively. More than 20 different types of GPA-like exception clauses applied to government procurements have also been identified. Many of these exception clauses borrow the form of one of the exception clauses modelled after GATT-1994 Article XX. In addition, several RTAs use different forms of exception clauses for trade in service, investment and government procurements.

Similar to GATT-like exception clause, Figure 22 shows that the trend in GATS- or GPA-like exception clause has evolved over the years. The most common form of exception clause to services, investment and government procurement consists of either replicating with some wording amendments or incorporating the general exception clause of the relevant WTO Agreements, and clarifying that measures necessary to protect human, animal or plant life or health include environmental measures, and that natural resources encompass living and non-living resources.

Figure 22: Evolution of environmental exception clauses based on GATS Art. XIV or GPA Art. XXIII



Source: Computations based on WTO RTA database.

5.3.14.2 EU-like exceptions

Unlike Article XX of GATT-1994, the text of Article 36 of the consolidated versions of the EU Treaty requires that exceptions be "justified on specified grounds", and reads as:

> "*The provisions of Articles 34 and 35* [regarding the prohibition of quantitative restrictions between Member States] *shall not preclude prohibitions or restrictions on imports, exports or goods in transit justified on grounds of public morality, public policy or public security; the protection of health and life of humans, animals or plants* [...]. *Such prohibitions or restrictions shall not, however, constitute a means of arbitrary discrimination or a disguised restriction on trade between Member States*."

Although Article 36 of the EU Treaty does not encompass a specific exception *relating to the conservation of exhaustible natural resources*, it does provide for an exception justified on grounds of public policy and of animal or plant life or health protection. Article 36 of the EU Treaty also contains language similar to that used in the chapeau of GATT-1994 Article XX to ensure that the measures inconsistent with the prohibition of trade restrictive measures are not arbitrarily discriminatory or disguised restrictions on trade. However, Article 36 does not mention that the inconsistent measures shall not be a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail.

There are currently 59 RTAs in force whose exception clause is modelled after Article 36 of the EU Treaty.[26] Most RTAs negotiated by the EFTA states and the EU, until respectively 2007 and 2010, include an EU-like exception clause. Since early 2011 none of the RTAs which entered into force includes an EU-like exception clause More than 11 forms of EU Treaty-like exception clause have been identified. Some RTAs have explicitly added the "protection of the environment" and/or the "conservation (or keeping) of exhaustible (or irreplaceable) natural resources". In some cases, the reference to exhaustible natural resources conservation is associated with the requirement, similar to the one found in GATT Article XX(g), that "such measures are made effective in conjunction with restrictions on domestic production or consumption". In the Economic Cooperation Organization Trade Agreement, the exception clause includes the "pursue of sanitary and quarantine objectives" along with the "protection of health and life of humans, animal or plants". The requirement that the "prohibitions or restrictions shall not constitute a means of arbitrary discrimination or a disguised restriction on trade" is omitted in a few RTAs. In some RTAs to which Turkey is a party, the expression "shall not constitute" is replaced with "must not constitute".

5.3.14.3 CIS-like exceptions

In contrast with Article XX of GATT-1994 and Article 36 of the EU Treaty, Article 13 of CISFTA adopts a different language and refers to regulatory measures, generally accepted in international practices, necessary for the protection of vital interests or the implementation of international agreements, namely:

> "*This Agreement shall not hamper the right of any of the Contracting Parties to accept measures of state regulation in the area of foreign economic relations generally accepted in international practice, that it considers necessary for the protection of its vital interests or which are undoubtedly necessary for the implementation of international agreements of which it is a signatory or is intended to become a signatory, if these measures concern*:
>
> (c) *protection of animals and plants*;
>
> (d) *protection of environment*;
>
> (h) *preservation of exhaustible natural resources*."

[26] These 59 RTAs involve economies from various regions, including Albania, Algeria, Andorra, Bosnia and Herzegovina, the Central American Common Market, Croatia, most EU RTAs signed before 2010, most RTAs negotiated by the EFTA states before 2007, the Economic and Monetary Community of Central Africa, Egypt, Faroe Islands, the Former Yugoslav Republic of Macedonia, Georgia, Iceland, Iran, Israel, Jordan, Lebanese Republic, the Republic of Moldova, Montenegro, Morocco, Norway, Pakistan, the Russian Federation, Serbia, South Africa, Switzerland, Tunisia, Turkey, Ukraine, and the West African Economic and Monetary Union.

While Article 13 of CISFTA refers to the protection of animals, plants as well as the preservation of exhaustible natural resources, it does, unlike GATT-1994 Article XX, mention explicitly the protection of the environment. Another specific feature of Article 13 of CISFTA is to explicitly cover measures adopted to implement commitments established under international agreements, which could include MEAs.

Although 31 RTAs currently in force incorporate an exception clause reflecting the language of Article 13 of CISFTA, no trade agreements, which entered into force since the end of 2006, include such type of exception clauses.[27] More than 23 different forms of CIS-like exception clauses have been identified. Some clauses omit the reference to "measures generally accepted or adopted in international practices" or to the "protection of vital or fundamental interests". The scope of the exceptions omits, in some cases, the "protection of animal and plant", the "protection of the environment", and/or the "conservation (or maintenance or preservation) of exhaustible (or irreplaceable or non-renewable) natural resources". In addition, some RTAs mention only either health protection or life protection of animal and plant. A few RTAs also add the "supply of material and equipment used in nuclear industry".

5.3.14.4 Other exceptions

Nine RTAs have devised their own exception clauses designed in a way that differs from GATT-1994 Article XX, EU Treaty Article 36 or CISFTA Article 13. For instance, the Treaty of Montevideo establishing the Latin American Integration Association (ALADI) stipulates that nothing shall be interpreted as precluding the adoption and implementation of measures regarding the protection of human, animal, and plant life and health, and exportation, use and consumption of nuclear materials, radioactive products or any other material used for the development and exploitation of nuclear energy. Relatively similar language is integrated in the Andean Community Agreement. The Economic Community of West African States (ECOWAS) states that the parties may, after having given notice, introduce or continue to execute restrictions or prohibitions affecting, among other things, the protection of animal or plant health or life, and the control of hazardous and toxic wastes, nuclear materials, radioactive products or any other material used in the development or exploitation of nuclear energy. The agreement establishing the COMESA adopts the same language but the only environment-related reference is the protection of animal or plant health or life. The exception clause of the Protocol establishing the East African Custom Union (EAC) is similar, but provides also exceptions for restrictions or prohibitions affecting the protection of the environment, natural resources, and animals and plants, among other things. The exception clause of the Pan-Arab Free Trade Area (PAFTA) Agreement is also unique by stipulating that the agreement's provisions do not apply to products and materials whose import, trading or use in any of the parties is banned, among other things, for environmental reasons or because of agricultural and veterinary quarantine rules.

5.3.15 Other environment-related exceptions, exemptions, exclusions and safeguards

In addition to a general exception clause, RTAs can also include provisions laying down exemptions or exclusions from specific obligations of the agreement. The terms "exception", "exemption" and "exclusion" are often used interchangeably to refer to sectors, activities, measures that either are excluded altogether from the RTA's obligation or are subject to differential treatment under the RTA. 64 RTAs incorporate provisions establishing or authorizing environment-related exemptions and exclusions from the RTA's obligations.

One of the most common environment-related exemption provision, found in 23 RTAs, either refers to or replicates Articles 27.2 and 27.3 of the TRIPS Agreement, which specify that the parties can exclude from patentability inventions to protect animal or plant life or health or to avoid prejudice to nature or environment, as well as plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than

[27] These 31 RTAs involve only countries from the CIS region, including Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, the Kyrgyz Republic, the Republic of Moldova, the Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

non-biological and microbiological processes.[28] The RTA between the United States and Oman is the only notified agreement whose provision on exclusion from patentability mentions animal and biological processes, but not plants. As discussed in section 5.5 in greater details, the parties are, however, required to provide for the protection of plant varieties.

Most of the remaining environment-related exemptions provisions are idiosyncratic and apply to safeguard measures, customs duties on exports, subsidies, investment, trade facilitation or technical barrier to trade measures. For instance, the EFTA and EEA stipulate that if serious economic, societal or environmental difficulties of a sectorial or regional nature liable to persist are arising, a member state may unilaterally take appropriate measures under the conditions and procedures set out. The RTA between the EU and Côte d'Ivoire includes also a provision authorizing Côte d'Ivoire, in exceptional circumstances and if it can justify specific needs for environmental protection, to introduce, on a temporary basis and after consulting with the EU, customs duties on exports or charges with equivalent effect on a limited number of traditional goods or increase the incidence of those which already exist. A relatively similar provision is included in the RTA between the EU, Papua New Guinea and Fiji which specifies that neither the EU nor the Pacific states may maintain or institute any duties, taxes or other fees and charges imposed on exports of goods to the other party, or any internal taxes, fees and charges on goods exported to the other party that are in excess of those imposed on like products destined for internal sale, except when these measures are necessary, in conjunction with domestic measures, for the protection of the environment.

The Treaties establishing the CARICOM and the Eurasian Economic Union (EAEU) incorporate an article explicitly requesting the parties to not ordinarily impose or introduce countervailing duties or take countermeasures on products which benefit from subsidies granted to assist entities in the adaptation of existing facilities to new environmental requirements imposed by law and/or regulations which result in greater constraints and financial burden on enterprises provided that the subsidies comply with the same conditions set out in Article 8 on the identification of non-actionable subsidies of the WTO Agreement on Subsidies and Countervailing Measures (SCM). The RTA between the Dominican Republic and Central America is the only notified agreement to explicitly exclude from the disciplines of the investment chapter measures adopted by a party to restrict the participation of another party's investors in its territory for environmental protection and conservation purposes. The RTA between Nicaragua and Chinese Taipei is also the only notified agreement to include a provision in the trade facilitation chapter recognizing that the release of certain goods or under certain circumstances involving goods subject to human, animal, plant life or health related requirements, may require submission of more extensive information before or upon arrival of such goods, to enable the parties' customs authorities to examine the goods to be released.

In addition to these types of exemptions, 27 RTAs also include environment-related waivers from the transparency obligations set out in the RTA's chapter on technical barriers to trade (TBT). Although the actual language used in these provisions differs, in particular with respect to the conditions authorizing the exemption, these provisions play the same role as Articles 2.10 and 5.7 of the TBT Agreement.[29] The most common environment-related transparency waiver provision provides the parties with the possibility to not notify to the other parties standards-related measures if they experience, are threatened by, or consider necessary to address, an urgent problem relating to the protection of animal or plant life or health, or of the environment. Another type of environment-related transparency exemption provisions mirrors Articles 2.12 and 5.9 of the TBT Agreement, and allows the parties not to grant a reasonable time for the other parties to present comments in writing on any notification if consideration of environmental protection arise or threaten to arise.[30] For instance, the RTAs to which the Republic of Korea is a party with the EU

[28] This provision is implicitly included in many RTAs with a chapter on intellectual property by including a provision reaffirming the parties' commitments established under the TRIPS Agreement.

[29] Article 2.10 of the TBT Agreement stipulates that […], where urgent problems of safety, health, environmental protection or national security arise or threaten to arise for a Member, that Member may omit such of the steps enumerated in paragraph 9 [regarding the notification of technical regulations] as it finds necessary, provided […]. A similar provision applying to conformity assessment procedure in Article 5.7 of the TBT Agreement.

[30] Article 2.12 of the TBT Agreement stipulates that except in those urgent circumstances referred to in paragraph 10, Members shall allow a reasonable interval between the publication of technical regulations and their entry into force […].A similar provision applying to conformity assessment procedure in Article 5.9 of the TBT Agreement.

and Turkey stipulate that the parties agree to give due consideration to leave sufficient time between the publication of technical regulations or conformity assessment procedures and their entry into force for economic operators of the other party to adapt, except where urgent problems of environmental protection arise or threaten to arise.

5.3.16 Indirect expropriation

The interaction between environmental laws and property rights has always been a contentious issue, in particular with respect to indirect expropriation. A number of RTAs incorporate specific disciplines on investment, including obligations with respect to investment protection matters, such as expropriation. The provisions on the protection against expropriation usually refer, among other things, to the conditions under which expropriation would be allowed and the determination of the compensation. In particular, expropriation should be undertaken for public purpose, non-discriminatory, in accordance with due process of law and provided with a compensation payment. Two types of expropriation are usually considered. Direct expropriation refers to a situation where the host country takes control over an investment and the title of property passes from the private investor to the government. Indirect expropriation (also known as "creeping expropriation") refers to a situation where the use of the investment by the investor is restricted following actions taken by the government to a degree similar to that of direct expropriation, except that the title of property is not passed to the government but remains in the investor's hands.[31]

In the context of RTAs, the controversy surrounding environmental laws and indirect expropriation goes back to the NAFTA, whose chapter on investment does not explicitly mention indirect expropriation. Article 1110 of the NAFTA stipulates that, except under some conditions, no party may directly nationalize or expropriate an investment of another party's investor in its territory or take measure tantamount to nationalization or expropriation of such investment. A number of scholars and environmentalists were concerned about the expression "tantamount to expropriation", which in their views could be interpreted too broadly[32] and lead to a "regulatory chill". A "regulatory chill" refers to a situation in which governments would refrain from adopting and implementing environmental laws and policies, in order to avoid facing the risk of being sued by companies that consider their ability to make a profit has been expropriated and seek compensation for losses and forgone future profits associated with the costs incurred to comply with the environmental laws. Besides the NAFTA, 26 other RTAs incorporate disciplines on expropriation without including a provision referring to environment-related indirect expropriation.[33]

Since the NAFTA, 46 RTAs incorporate in the chapter on investment or in its annex a provision stating that non-discriminatory environment laws cannot be considered as indirect expropriation. Similar to the other types of environment-related provisions, the language of these environment-related provisions on indirect expropriation varies, with more than 15 different syntaxes identified. The most common form, included in 21 RTAs (including all post-NAFTA RTAs signed by the United States), stipulates that except in rare circumstances non-discriminatory regulatory actions by a party that are designed and applied to protect legitimate public welfare objectives, such as the environment, do not constitute indirect expropriations. In 19 of these 21 RTAs this provision is qualified by the confirmation of the parties' shared understanding. The RTAs between India and Singapore, between the Association of Southeast Asian Nations (ASEAN) member states, Australia and New Zealand, between New Zealand and the Republic of Korea, and the agreements to which Malaysia is a party with New Zealand, India and Australia use a similar language but refer to "expropriation" and not "indirect expropriation". In addition, five of these six RTAs do not mention "in rare circumstances".

[31] See Abbot (2000) or Nogales (2002) for more details.

[32] ibid.

[33] These 26 RTAs are Australia-Singapore; Australia-Thailand; Brunei Darussalam-Japan; Canada-Chile; Chile-Japan; Chile-Mexico; China-Pakistan; Chile-the Republic of Korea; COMESA; El Salvador-Panama; EFTA-Singapore; Guatemala-Chinese Taipei; Japan-Thailand; Japan-Malaysia; Japan-Indonesia; Japan-Mexico; Japan-the Philippines; Japan-Singapore; Japan-Switzerland; the Republic of Korea-Singapore; Malaysia-Pakistan; New Zealand-Singapore; New Zealand-Thailand; Panama-Chinese Taipei; Eurasian Economic Union; and China-the Republic of Korea .

A provision couched in a different language, included in the RTAs between China and New Zealand, China and Peru, and New Zealand and Chinese Taipei, stipulates that measures taken in the exercise of a party's regulatory powers as may be reasonably justified in the protection of the public welfare, including the environment, shall not constitute an indirect expropriation, except in rare circumstances. More recently, 13 RTAs further specify what "rare circumstances" entail, namely a situation in which a measure or action or series of measures or actions has an effect or is extremely severe or disproportionate in light of its purpose. Out of these 13 RTAs, the agreements to which Canada is a party with Peru, Jordan, Panama, and Colombia; and the RTA between Costa Rica and Peru further qualify these measures in the context of "rare circumstances" as measures that cannot be reasonably viewed as having been adopted and applied in good faith.

A completely different language is reflected in the RTA between India and Japan. The provision confirms the parties' shared understanding that the determination of whether an action or a series of actions by a party, in a specific fact situation, constitutes an indirect expropriation requires a case-by-case, fact-based inquiry that considers, among other factors, the objectives of the government action, including whether such action is taken for legitimate public objectives such as protecting and preserving the environment.

5.4 Multilateral environmental agreements and international instruments

In the last 70 years, multilateral environmental agreements (MEAs) have emerged as an important means for countries to tackle environmental problems, particularly those regional or global in scope, with currently over 470 signed MEAs.[34] The 2012 Rio+20 Conference Declaration recognizes the significant contribution to sustainable development made by MEAs and encourages parties to MEAs to consider further measures, as appropriate, to promote policy coherence at all relevant levels, improve efficiency, reduce unnecessary overlap and duplication, and enhance coordination and cooperation among MEAs.

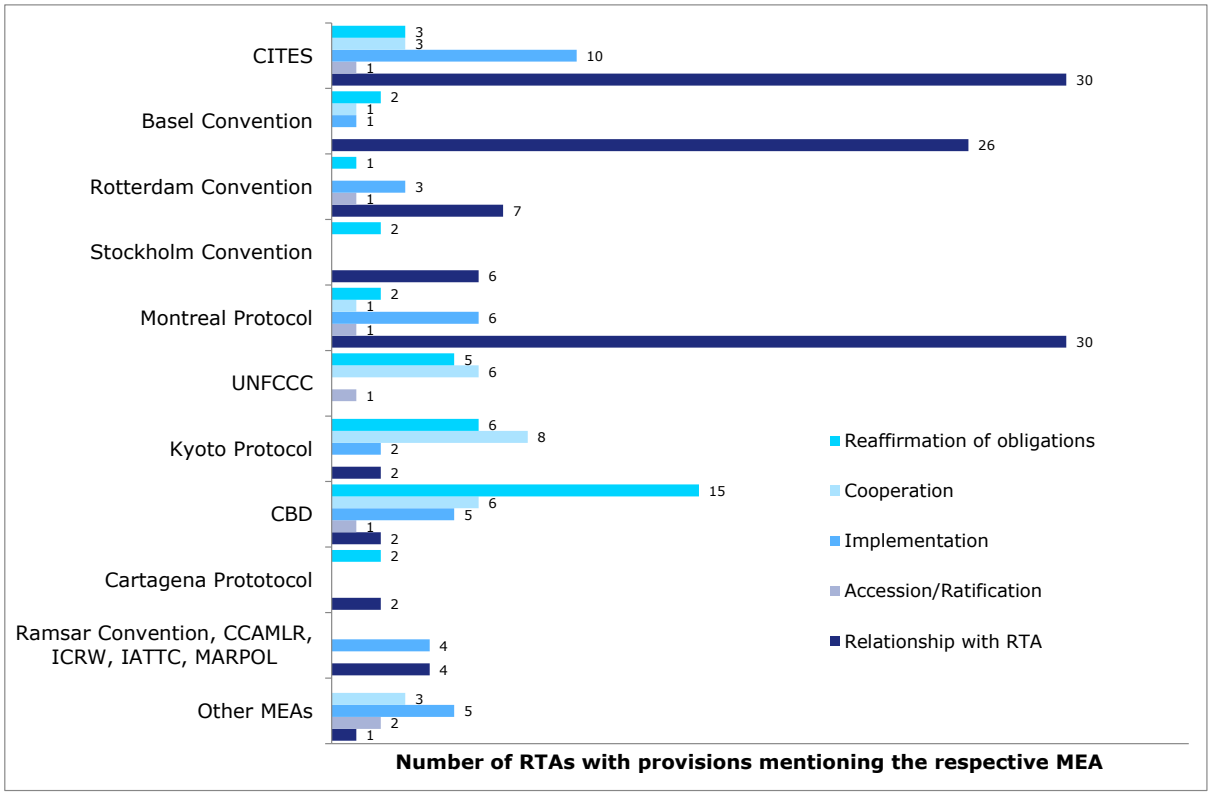
Provisions related to MEAs, sometimes referred as "international environmental agreements" or "international environmental obligations" are found in a large number of RTAs, namely 126 agreements.[35] These MEAs-related provisions are one of the most heterogeneous categories of environment-related provisions in RTAs, with more than 190 different provisions identified. Some provisions reaffirm the importance of MEAs, while others reaffirm the parties' obligations under MEAs. Several other provisions call on the parties to adopt measures required to comply with MEAs' obligations. A few provisions require the parties to adhere or ratify specific MEAs. Many provisions identify MEAs as an area of cooperation. A number of provisions also clarify the relationship, including in case of inconsistency, between the RTA and specific MEAs. The role of MEAS in RTAs' consultations and/or dispute settlement procedures is further specified in some provisions.

The broad and large number of different MEAs-related provisions identified is also partly explained by the MEAs' scope. In some RTAs, the provisions refer to MEAs in general, while in other agreements the reference to MEAs is restricted to unspecified MEAs to which one of the parties is a party or to which all the parties are party. In a number of RTAs, a specific list of MEAs is established or reference to specific MEAs is made. As shown in Figure 23, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol) and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Convention), mentioned respectively in 36, 34 and 29 RTAs, are the most frequently cited MEAs in RTAs and their side documents. Other MEAs explicitly mentioned in an increasing number of recent RTAs include the Convention on Biological Diversity (CBD), and the Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC) mentioned in 22 and 15 RTAs, respectively.

[34] See Mitchell, 2016. International Environmental Agreements Database Project (http://iea.uoregon.edu).

[35] The analysis only considers provisions referring explicitly to MEAs or international environmental agreements and obligations.

Figure 23: MEAs mentioned in environment-related provisions in RTAs[36]

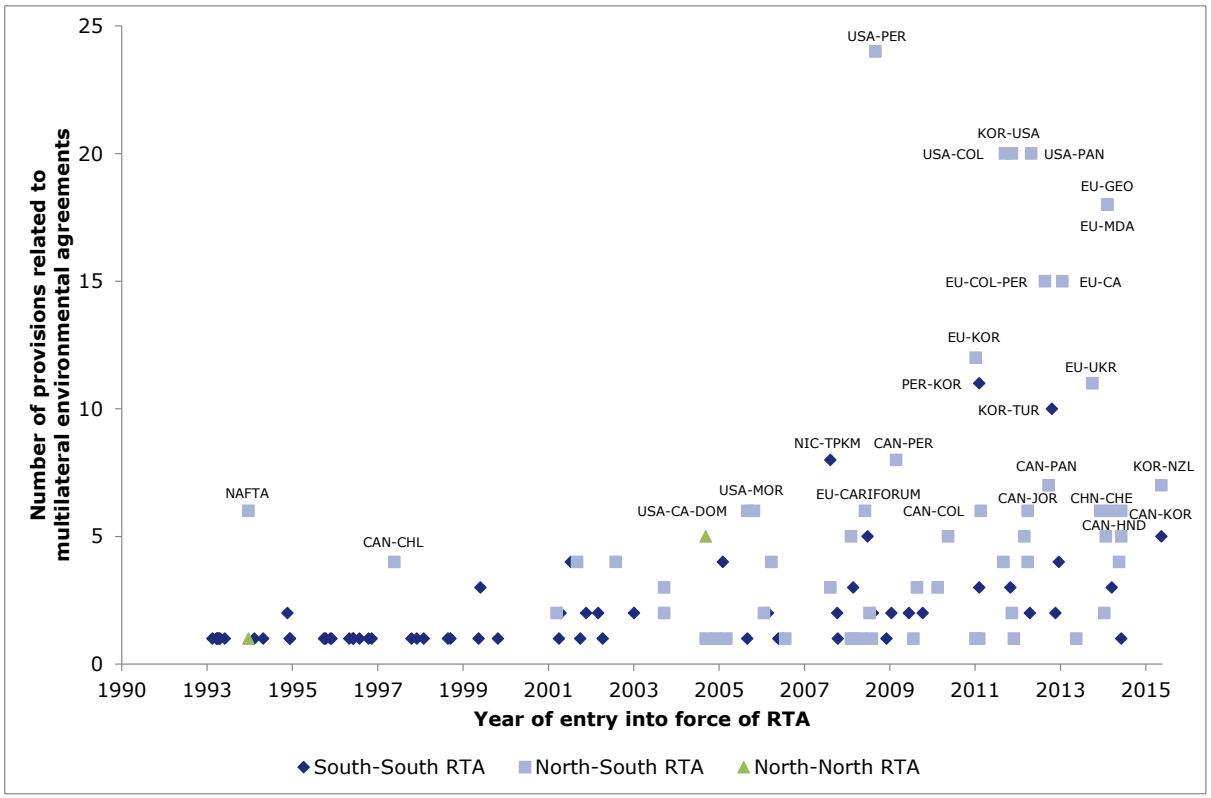


Source: Computations based on WTO RTA database.

As highlighted in Figure 24, the number of RTAs with MEAs-related provisions has increased significantly since 2006. The RTA between the United States and Peru is the agreement with the highest number of MEAs-related provisions. The agreement includes provisions highlighting the importance of MEAs, requiring the parties to fulfil the obligations of seven covered MEAs, including specific obligations with respect to CITES in the forestry sector, clarifying the relationship between the RTA and the covered MEAs, and requiring the RTA's council and dispute settlement panel to consult with, and defer to the interpretative guidance under, the relevant MEA. The remaining RTAs with many MEAs-related provisions involve mainly the United States, Canada, and the EU. Among developing countries, the RTAs to which the Republic of Korea is a party with Peru and Turkey, as well as the RTA between Nicaragua and Chinese Taipei incorporate a relatively high number of different MEAs-related provisions.

[36] The abbreviations read as follows: CITES: Convention on International Trade in Endangered Species of Wild Fauna and Flora; Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal; Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade; Stockholm Convention on Persistent Organic Pollutants; Montreal Protocol on Substances that Deplete the Ozone Layer; UNFCCC: United Nations Framework Convention on Climate Change; Kyoto Protocol to UNFCCC; CBD: Convention on Biological Diversity; Cartagena Protocol on Biosafety to CBD; Ramsar Convention: Convention on Wetlands of International Importance Especially as Waterfowl Habitat; CCAMLR: Convention on the Conservation of Antarctic Marine Living Resources; ICRW: International Convention for the Regulation of Whaling; IATTC: Convention for the Establishment of an Inter-American Tropical Tuna Commission; MARPOL: Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships; Other MEAs include the Unite Nations' recommendations on the transport of dangerous goods; Convention on Eastern and Southern Africa on Water and Marine Resources; Treaty on the Conservation and Sustainable Management of Forest in Central Africa; United Nations Convention on the Law of the Sea; Convention on the Protection of the Black Sea Against Pollution; Energy Community Treaty; and Energy Charter Treaty.

Figure 24: Evolution of provisions related to MEAs



Source: Computations based on WTO RTA database.

5.4.1 Importance of MEAs

Provisions recognizing the important role of MEAs are included in 28 RTAs. The language and scope of such provisions vary across agreements, with more than 22 different forms identified. The most common form, included in 14 RTAs, recognizes the importance of MEAs (in general or to which they are party) in protecting the environment. Another related provision, found in 10 RTAs, recognizes the value of international governance and MEAs as a response of the international community to global or regional environmental problems. These provisions are sometimes complemented by another provision, found in 11 RTAs, committing the parties to continue to seek means or strive to enhance the mutual supportiveness between MEAS to which they (all) are party and international trade agreements to which they (all) are party. In that context, another provision, included in 7 RTAs, recognizes that the RTA's environment chapter (and in some cases side environmental cooperation agreement) can contribute to realizing the goals of the MEAs to which they are (all) party.

5.4.2 Reaffirmation of obligations under MEAs

Another specific type of MEAs-related provisions, included in 34 RTAs, refers to the parties' commitments established under MEAs. Similar to other MEAs-related provisions, the language and scope of this type of provision differ between agreements. Certain provisions, incorporated in 11 RTAs, reaffirm each party's rights and obligations under the MEAs to which they (all) are party. Other provisions are slightly more specific and reaffirm each party's obligations under specific MEAs, such as the CBD, CITES or Kyoto Protocol. Besides MEAs, another provision, found in 8 RTAs, recalls or refers to several international environmental instruments, namely the Stockholm Declaration on the Human Environment of 1972, the Rio Declaration on Environment and Development, Agenda 21 on Environment and Development, and the Johannesburg Plan of Implementation on Sustainable Development, and more recently the Rio+20 Outcome Document "The Future We Want".

5.4.3 Environmental laws consistent and in compliance with MEAs' obligations

Another type of MEAs-related provisions, found in 51 RTAs, goes beyond the reaffirmation of the parties' obligations under MEAs and refer to the effective implementation in the parties' laws and practices of the MEAs to which they are party, including in some cases the MEAs specifically listed in the RTA. More than 45 different forms of this type of provisions have been identified, many of which are idiosyncratic or included in a couple of RTAs.

The most common form of this provision, found in 15 RTAs, affirms or reaffirms the parties' commitments to fulfil their international environmental obligations or implement effectively in their laws and practices the MEAs to which the parties are (all) party. Another related provision, included in nine agreements, recognizes more generally the importance of implementing MEAs to which the parties are (all) party. Six RTAs, including the RTAs to which the EFTA states are a party with Montenegro and Central America, China, and the environmental cooperation agreement between New Zealand and Malaysia further reaffirm the parties' adherence to environmental principles reflected in the Stockholm Declaration on the Human Environment, the Rio Declaration on Environment and Development, Agenda 21 on Environment and Development, and the Johannesburg Plan of Implementation on Sustainable Development.

The remaining forms of this type of MEAs-related provision tend to be formulated more specifically. Seven RTAs, including the RTA between Hong Kong (China) and Chile, and between Costa Rica and Peru, call on the parties to endeavour to make, ensure or have its environmental laws consistent, in harmony or in compliance with commitments under the MEAs to which they are party or with respect to specific listed MEAs. The provision in the RTA between Peru and the Republic of Korea is worded more firmly by stipulating that the parties shall comply with their obligations under MEAs to which all are party.

A list of covered MEAs (and international environmental instruments) whose obligations the parties are committed to fulfil is incorporated in 19 RTAs. The number of listed MEAs differs between some of these RTAs, although most of these RTAs provide with the possibility to modify the list of covered MEAs. The agreements to which the United States is a party with Peru, the Republic of Korea, Colombia and Panama incorporate additional language clarifying that the notion of "covered MEAs" associated with the obligation to fulfil the obligations under the covered MEAs encompasses existing or future protocols, amendments, annexes, and adjustments under the relevant MEA. The four RTAs further indicate that the party's obligation in this context shall be interpreted as to reflect, *inter alia*, existing and future reservations, exemptions, and exceptions applicable to it under the relevant MEA.

A limited number of RTAs incorporate provisions related to the fulfilment of MEAs addressing specific environment-related issues. For instance, the RTA between the Dominican Republic and Central America stipulates in the chapter on standard-related measures that each party will implement provisions, guidelines or recommendations of the Charter of the United Nations, the Basel Convention and international agreements to which they are parties, as well as its legislation currently in force in order to control and manage hazardous substances and wastes. Other specific environment-related issues and associated MEAs include endangered species and biological diversity, which are discussed in details in section 5.5.2 .

5.4.4 Adoption and upholding of laws to fulfil the obligations under covered MEAs

As explained above, a number of provisions establish commitments to adopt and uphold domestic environmental laws. A similar type of provision applying to MEAs is found in a small number of RTAs, namely 5 agreements. Under the RTAs to which the United States is a party with Peru, the Republic of Korea, Colombia and Panama, the parties shall adopt, maintain and implement laws to fulfil their obligations under the covered MEAs.

Another provision, incorporated in these same four US RTAs, further stipulates that the parties shall not fail to effectively enforce their environmental laws, regulations, and other measures to fulfil their obligations under the covered MEAs, through a sustained or recurring course of action or inaction, in a manner affecting trade or investment between the parties, after the date of entry into force of the RTA. As discussed in details in section 5.12 , both provisions on the obligation to implement and to uphold environmental laws in order to fulfil MEAs' obligations are also subject to

the dispute settlement mechanism of these four RTAs. In that context, these provisions indicate that in order to establish a violation, a party must demonstrate that another party has failed to adopt, maintain, or implement laws, regulations, or other measures to fulfil an obligation under a covered agreement in a manner affecting trade or investment between the parties.

The economic partnership agreement between the CARIFORUM states and the EU includes an idiosyncratic provision in the chapter on commercial presence requiring the parties to cooperate and take measures as may be necessary, *inter alia*, through domestic legislation, to ensure that investors do not manage or operate their investments in a manner that circumvents international environmental obligations arising from agreements to which they are parties.

5.4.5 Accession and ratification of MEAs

A limited number of RTAs, namely five agreements, contain provisions related to the accession and/or ratification of MEAs. In particular, the Agreement establishing the COMESA and the EAC's Protocol on Environment and Natural Resources Management set forth the parties' undertaking to accede international agreements or conventions designed to improve the management of energy resources, natural resources, and wildlife and national parks. The provisions in the EAC's Protocol do not only refer to international agreements' ratification but also to their accession. The COMESA Agreement also stipulates that the parties agree to accede to the UN conventions on climate change and biodiversity (without mentioning the exact name of the MEAs), as well as the convention for Eastern and Southern Africa on water and marine resources; and the Montreal Protocol.

More recently, the RTA between the EU and Central America calls on the parties to undertake to ensure that, by the agreement's entry into force, they have ratified the Amendment to Article XXI of the CITES, and, to the extent they have not yet done so, to ratify and effectively implement the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade. Similarly, the association agreement between the EU and the Republic of Moldova includes in its annex listing all the EU directives and regulations Moldova commits to approximate, a provision calling Moldova to endeavour to ratify the Gothenburg Protocol to Abate Acidification, Eutrophication and Ground-level Ozone, including the amendments adopted in 2012 within 10 years of the agreement's entry into force.

5.4.6 Dialogue and cooperation on MEAs

Cooperative provisions related to MEAs issues are incorporated into an increasing number of agreements, namely 47 RTAs. These cooperative activities range from the promotion of ratification of MEAs in general to their implementation. In many RTAs, provisions on cooperation apply to specific MEAs. For instance, in both EU-Montenegro and EU-Bosnia and Herzegovina RTAs, the article on environmental cooperation mentions that special attention shall be paid to the ratification and the implementation of the Kyoto Protocol. Similarly 22 RTAs incorporate cooperative provisions on the implementation or the realization of activities contributing to the achievement of the objectives of specific MEAs, such as the Basel Convention, CBD, CITES, Kyoto Protocol, Montreal Protocol, Treaty on the Conservation and Sustainable Management of Forest in Central Africa, and UN Convention on the Law of the Sea (UNCLOS).

Other areas of cooperation related to MEAs include information exchange on MEAs' implementation and on the relationship between MEAs and international trade rules, mentioned in six and five RTAs, respectively. Another provision, included in 23 RTAs, further refers to cooperation to enhance the parties' participation in MEAs meetings and to promote environmental interests in regional or multilateral forums. For instance, the RTAs negotiated by the Republic of Korea with the EU and Turkey commit the parties to cooperate on the development of the future international climate change framework in accordance with the Bali Action Plan. The possibility to consult and cooperate, as appropriate, with respect to negotiation on trade-related environmental issues of mutual interest is included in seven RTAs, including the RTAs to which the Republic of Korea is a party with the EU, Turkey and Canada. Five RTAs to which the United States is a party with Australia, Morocco, the Dominican Republic and Central America, the Kingdom of Bahrain, and Panama refer explicitly to the on-going WTO negotiations on the relationship between WTO rules and MEAs and call on the parties to consult, as appropriate or regularly, with each other. The RTAs

between the United States with Chile, Singapore, and Morocco further request the parties to consult on the extent to which the outcome of the WTO Doha Negotiations on the relationship with MEAs applies to the respective RTA.

5.4.7 Relationship between RTA and MEAs

The most common form of MEAs-related provisions, incorporated in 75 RTAs, sets forth the relationship between the RTA (or in some cases the side agreement) and MEAs. Provisions on the relationship between RTA and MEAs can be broadly grouped in three main categories of provisions clarifying that the obligation under (specific) MEAs are (i) not affected; (ii) covered by the exception clause; and (iii) to prevail in case of inconsistency with the RTA.

5.4.7.1 MEAs' obligations not affected by the RTA

The first type of provisions related to the relationship between RTA and MEAs, included in 13 RTAs, confirms that the trade agreement or associated environmental cooperation side agreement does not affect the obligations under MEAs to which the parties are party. A relatively similar provision with respect to the CITES is included in the US-Peru RTA's annex on forest sector governance, which stipulates that nothing in the annex shall limit the authority of each party to take action consistent with its domestic legislation implementing the CITES. Similarly, the RTAs to which Peru is a party with Panama and Costa Rica confirms that nothing in the chapter on intellectual property rights will be detrimental to the CBD's provisions. The RTA between the EU and Central America also confirms that no provisions in the title on intellectual property shall prevent parties from adopting or maintaining measures in conformity with what is established in the CBD.

5.4.7.2 MEAs' obligations covered by the RTA's exception clause

The second type of provisions related to the relationship between RTA and MEAs refers to the exception clauses. As discussed in 5.3.14 , 32 RTAs include an exceptions clause based on the structure and language of Article 13 of CISFTA, which refers, among other things, to regulatory measures concerning animals, plant or environment protection and exhaustible natural resources preservation necessary for the implementation of international agreements of which the party is a signatory or is intended to become a signatory. Other MEAs-related exception clauses are found in a limited number of RTAs. The RTAs negotiated by the EU with Colombia and Peru, Central America, the Republic of Moldova, Ukraine and Georgia specifies in the sustainable development chapter that nothing in the RTA shall prevent, be construed or limit the right to adopt, maintain or enforce measures to implement the listed MEAs or the MEAs to which they are party, provided those measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination where the same conditions prevail, or a disguised restriction on international trade.

5.4.7.3 MEAs' obligations to prevail in case of inconsistency with the RTA

The third and last type of provisions related to the relationship between RTA and MEAs refers to potential situations of inconsistency between the obligations under the RTA and those under MEAs. The NAFTA was the first RTA to include a provision explaining that in the event of any inconsistency between the RTA and the specific trade obligations set out in the covered MEAs, such obligations shall prevail to the extent of the inconsistency, provided that where a party has a choice among equally effective and reasonably available means of complying with such obligations, the party chooses the alternative that is the least inconsistent with the other provisions of the RTA. 19 other RTAs, involving mainly the United States, Canada, Chile and Panama, include the exact same provision with a different list of covered MEAs in some of these trade agreements. The RTA between Nicaragua and Chinese Taipei also replicates this provision, but adds that the parties shall, for this purpose, enforce the provisions set out in the instruments in the covered MEAs.

More recently, the provision in both Canada-Jordan and Canada-Panama RTAs clarifies that in the event of an inconsistency, the obligation of the party under a covered MEA shall prevail provided that the measure taken is necessary to comply with that obligation, and is not applied in a manner that would constitute, where the same conditions prevail, arbitrary or unjustifiable discrimination or a disguised restriction on international trade. The RTA between Canada and Jordan further explains that an inconsistency between the RTA and a party's obligation in one of the covered MEAs exists when a party cannot comply with an obligation in one of the listed MEAs without violating an obligation in the RTA.

In the most recent RTAs to which the United States is a party with Peru, the Republic of Korea, Colombia, and Panama, the provision is worded differently by stipulating that in the event of any inconsistency, the party shall seek to balance its obligations under both RTA and covered MEA, but this shall not preclude the party from taking a particular measure to comply with its obligations under the covered MEA, provided that the primary purpose of the measure is not to impose a disguised restriction on trade. These four RTAs further clarify that this provision is without prejudice to the MEAs that are not listed in the agreements.

5.4.8 MEAs-related consultations and disputes settlement procedures

As discussed in greater details in section 5.11 , several RTAs provide for consultations, and in some cases dispute settlement procedures, regarding environment-related matters arising under the RTA and/or environmental cooperation agreement. In this context, several provisions, included in 22 RTAs, refer to consultations and/or dispute settlement procedures on MEAs-related matters. Similar to other categories of environment-related provisions, MEAs-related provisions on consultation and dispute procedures take different forms, ranging from the possibility to seek information from MEAs during the parties' consultations or dispute proceedings to the deference of the interpretative guidance under the relevant MEA and to the choice of forum to resolve the issue.

5.4.8.1 Advice from MEAs during consultations and dispute settlement procedures

Nine RTAs, such as the agreements between the EFTA states and Montenegro and between the EU and Colombia and Peru, provide the parties with the possibility to seek advice, information, views or assistance from relevant MEAs or international organizations when parties hold consultations to resolve matters concerning the interpretation and application of the RTA's chapter on environment or sustainable development. The agreements negotiated by the EU with the Republic of Korea, Central America, the Republic of Moldova, Ukraine and Georgia request in addition the consulting parties to take into account the activities of relevant MEAs in the consultations' resolution.

5.4.8.2 Choice of forum between MEAs and RTA

Another MEAs-related provision on dispute settlement concerns the choice of forum and allows a party to resort only to the RTA's dispute settlement procedures. In particular, the RTAs to which Canada is a party with the United States and Mexico (NAFTA), Chile, Costa Rica, Peru, Colombia, Panama, the Republic of Korea and Honduras and the RTAs between Chile and Mexico, and between Nicaragua and Chinese Taipei foresee the possibility for a complaining party to resort only to the RTA's dispute settlement procedures when a party complained against claims that its action is subject to the RTA's article on the "relation to environmental and conservation agreements" stipulating that specific trade obligations set out in covered MEAs shall prevail to the extent of the inconsistency with the RTA.

The RTAs to which the United States is a party with Peru, the Republic of Korea, Colombia and Panama include other different provisions relatively more specific. These provisions stipulate that the parties shall endeavour to address the matter related to a party's obligation under the covered MEAs through a mutually agreeable consultative or other procedure, if any, under the relevant MEA, unless the procedure under the covered agreement requires a decision to be taken by consensus which could result in unreasonable delay.

5.4.8.3 Consultation mechanism with and deference to MEAs

The RTAs to which the United States is a party with Peru, the Republic of Korea, Colombia and Panama also request the RTA's council, following a party's request (when the parties failed to resolve the matter through consultations) to establish a mechanism to consult fully with any entity authorized to address the issue under the relevant MEA. In addition, in case of consultations regarding any provision of the RTA's environment chapter, the RTA's council has to defer to interpretative guidance on the issue under the relevant MEA to the extent appropriate in light of its nature and status, including whether the party's relevant laws, regulations, and other measures are in accordance with its obligations under the MEA. The same four RTAs negotiated by the United States also provide for the same provisions when a party has recourse to the dispute settlement procedure after failing to resolve the issues through consultations and the RTA's council.

5.5 Intellectual property rights, biodiversity and traditional knowledge

The links between intellectual property rights (IPRs) and the environment are complex and many of the issues involved remain contentious.[37] Many of these various issues have been the object of international agreements and are being discussed in different international fora, such as the World Intellectual Property Organization (WIPO), the Food and Agricultural Organization of the UN (FAO) in the context of the FAO International Treaty on Plant Genetic Resources for Food and Agriculture, and the Union for International Protection of New Varieties of Plants (UPOV), the Conference of the Parties of the Convention on Biological Diversity and the WTO.

A growing number of RTAs, namely 81 agreements, incorporate specific environment-related provisions on intellectual property, many of which are idiosyncratic or incorporated in a limited number of RTAs. These intellectual property provisions can be grouped in two broad categories (i) patents, including plant varieties protection, and (ii) biodiversity and traditional knowledge.

5.5.1 Patents and plant varieties protection

Environment-related provisions regarding intellectual property are found in 69 RTAs. As explained in section 5.3.15 , several RTAs establish environment-related exemptions or exclusions from their respective agreement's obligations. In the context of intellectual property, 23 RTAs either refer to or replicate Articles 27.2 and 27.3 of TRIPS Agreement confirming that inventions can be excluded from patentability in order to protect animal or plant life or health or to avoid prejudice to nature or environment.

The remaining types of environment-related provisions on patents, included in 66 RTAs, refer to plant varieties. The most common provision, found in 25 RTAs, lists (new) plant protection as part of the scope of intellectual property. Another provision, establishing the obligation to protect the intellectual property of plant varieties, is included in 20 RTAs either through a reference to or replication, in some cases with amended wording, of Article 27.3 of TRIPS Agreement. The RTA between the United States and Morocco is the only notified agreement to include a provision requesting each party to make patents available not only for the inventions in plants but also in animals.

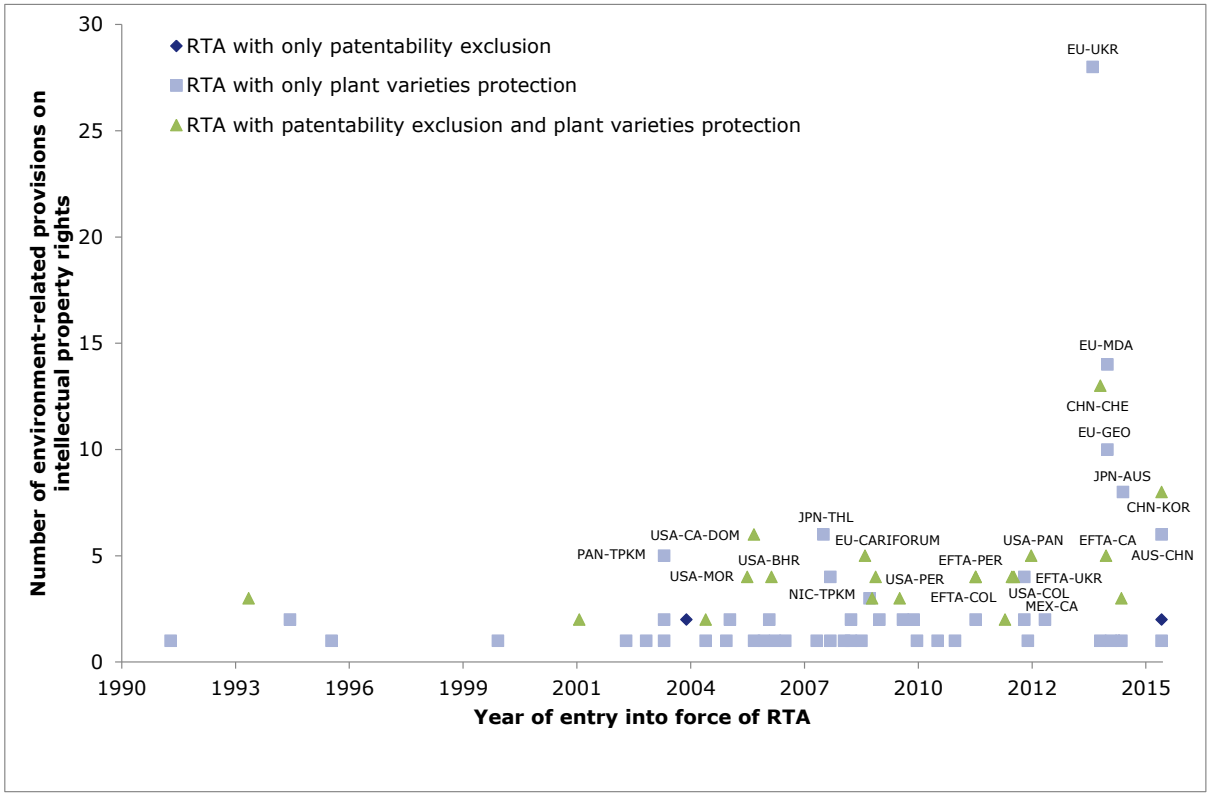
Another common provision, included in 23 RTAs, such as all post-NAFTA RTAs negotiated by the United States and a number of agreements involving the EU and EFTA states, further request parties to ratify or accede to the 1991 International Convention for the protection of New Varieties of Plants (UPOV) which provides for a *sui generis* system of intellectual property protection for plant varieties. A few RTAs, such as the agreements between the United States and Jordan, the EU and Chile, Panama and Chinese Taipei, and the EFTA states and Hong Kong (China), request parties to comply with or implement specific UPOV Convention's provisions. Other RTAs, such as the RTA between Mexico and Colombia, call on the parties to ensure or to consider to observe the UPOV Convention's substantive provisions without implying any commitment to adhere to the Convention. Similarly, the RTAs to which Japan is a party with Switzerland and Viet Nam and the

[37] See IISD and UNEP (2014).

agreement between China and Switzerland request each party to provide the same level of protection for new varieties of all plant genera and species as provided under the 1991 UPOV Convention.

As indicated in Figure 25, the inclusion of a high number of different environment-related provisions on patents and plant varieties protection is a relatively recent phenomenon. The RTA between the EU and Ukraine is the agreement with the highest number of different environment-related provisions on patents, including biotechnological inventions, plant protection products and plant varieties. For instance, the article on the protection of biotechnological inventions specifies, among other things, that inventions shall be considered unpatentable where their commercial exploitation would be contrary to public policy or public morality, such as processes for modifying the genetic identity of animals which are likely to cause them suffering without any substantial medical benefit to man or animal. The article explains also that the protection conferred by a patent on a biological material possessing specific characteristics as a result of an invention shall be extended to any biological material derived from that biological material. Another article on data protection on plant protection products details the authorisation to place plant protection products on the market, including the duration of the authorisation and potential extension. Finally, the parties also agree to cooperate to promote and reinforce the protection of plant varieties rights in accordance with the UPOV Convention.

Figure 25: Evolution of environment-related provisions on intellectual property



Source: Computations based on WTO RTA database.

Other RTAs with a high number of provisions regarding plant varieties protection involve mainly the EU, China, Japan and the United States. The RTA between Japan and Thailand was, until 2014, the agreement incorporating the highest number of explicit environment-related provisions on intellectual property. Under the agreement's specific article on new varieties of plants, the parties recognize the importance of protecting new varieties of plants in a manner based on international standards and commit themselves to ensure that their respective rights relating to new varieties of plants are adequately protected. The article further calls on the parties to endeavour to protect as many plant genera or species as possible and as early as practicable, while at the same time providing for the possibility to limit the scope of the plant genera or species for which the party accords the rights to the nationals of the other parties to the plan genera or species for which the

other party accords the rights to the former party's nationals. Another provision requests each party to provide for the application of criminal procedures and penalties in cases of rights infringement relating to new varieties of plants, committed wilfully and on a commercial scale. In that context, each party's competent authorities may initiate criminal proceedings *ex officio*, without the need for a formal complaint by the right holder whose intellectual property rights have been infringed.

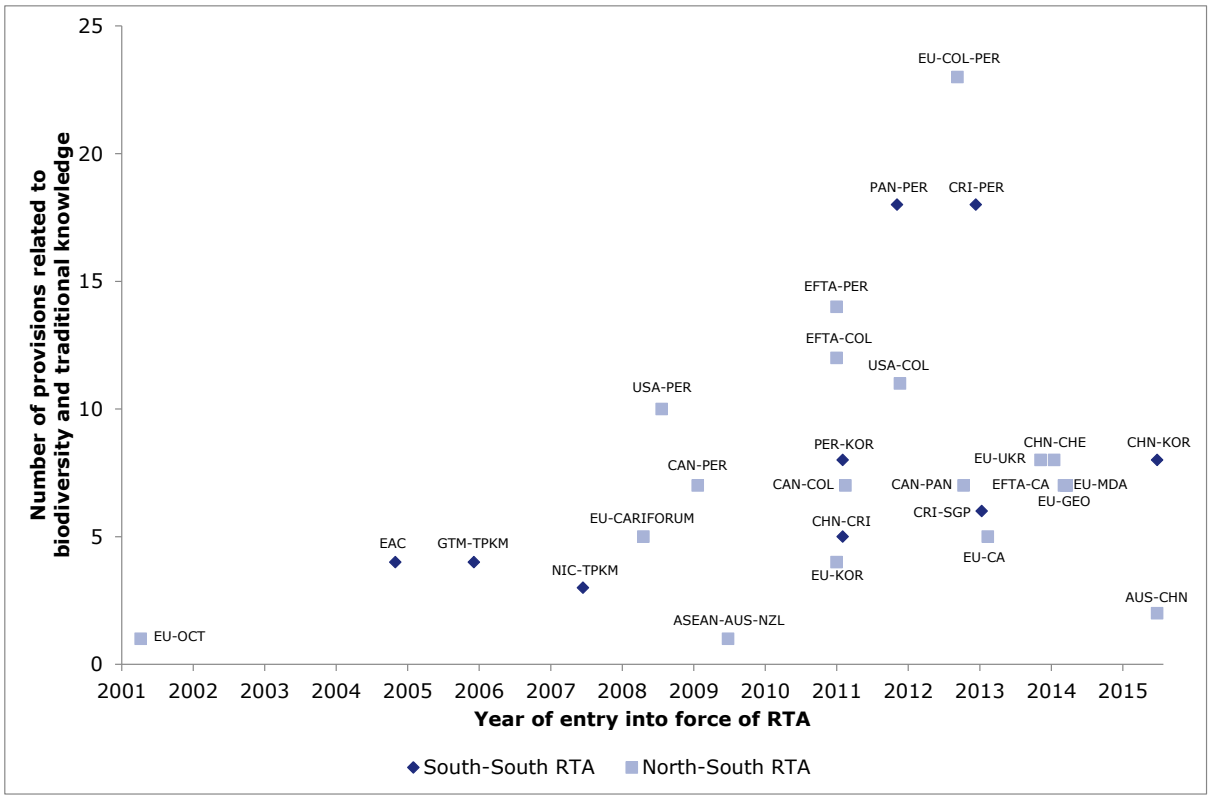
5.5.2 Biodiversity and traditional knowledge

Biodiversity and traditional knowledge conservation and sustainable use constitute a highly contentious environment-related issue that has received considerable attention in the last 20 years, including through the adoption of several MEAs. In particular, the Convention on Biological Diversity (CBD), adopted at the 1992 UN Rio Conference, aims, among other things, at ensuring the conservation and sustainable use of biodiversity (i.e. animals, plants, and micro-organisms) and its components, including the contribution of indigenous and local communities, as well as the fair and equitable sharing of benefits arising from genetic resources. The CBD framework further led to the adoption of the Cartagena Protocol on Biosafety in 2000 whose objective is the protection of biological diversity from the potential risks posed by the handling, transport and use of living modified organisms resulting from modern biotechnology. More recently, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization was adopted in 2010 and aims at sharing the benefits arising from the utilization of genetic resources in a fair and equitable way.

A limited but increasing number of RTAs, namely 28 agreements, include specific provisions related to biodiversity and traditional knowledge. Most of these provisions are idiosyncratic in terms of scope and language. Some provisions cover simultaneously biodiversity and traditional knowledge, while other focus only on biodiversity or traditional knowledge. Another feature of many of these provisions is to be located in a specific article (or chapter) on biodiversity and traditional knowledge in the chapter (or section) on intellectual property of 18 RTAs, such as the RTA between Guatemala and Chinese Taipei, and/or in the environment chapter of 9 RTAs, such as the RTA between Peru and the Republic of Korea. More generally, references to biodiversity can be found in the chapters on intellectual property (mentioned in 20 RTAs), cooperation (20 RTAs), and environment (13 RTAs). In addition, several provisions related to biodiversity and traditional knowledge are included in side documents, such as the understanding regarding biodiversity and traditional knowledge associated with the RTAs negotiated by the United States with Peru and Colombia, or the environmental cooperation agreements to which Canada is a party with Peru, Colombia, and Panama.

Many of these provisions refer explicitly or replicate some commitments established under the CBD, such as the sovereign rights of states over biological resources or the obligation to ensure access to genetic resources based on mutually agreed terms, and subject to prior informed consent of the party providing the resources. The most common type of provisions is the recognition of the importance of biodiversity and/or contribution made by traditional knowledge, mentioned in 19 RTAs. Another frequent provision, included in 13 RTAs, refers to the parties' commitment, as provided in their national legislation, to protect the access to genetic resources and traditional knowledge. Similarly, a related provision, found in 10 RTAs, refers to the parties' commitment to promote the conservation and sustainable use of biological diversity. In this context, another provision, included in 15 RTAs, recognises or reaffirms the rights and obligations established under the CBD, including the parties' sovereign rights over their natural resources (found in 10 RTAs) and the (fair and) equitable benefits sharing arising from the utilisation of genetic resources, traditional knowledge, innovations and practices (8 RTAs). The intellectual property rights aspects of biodiversity and traditional knowledge conservation are also identified as an area of cooperation in 13 RTAs, through for instance the promotion of training and information exchange regarding, *inter alia*, the avoidance of illegal access to genetic resources and traditional knowledge, and the equitable sharing of the benefits. More generally, 43 RTAs include cooperation provisions on issues related broadly to biodiversity, such as biosafety, invasive species and genetically modified organisms.

Figure 26: Evolution of provisions related to biodiversity and traditional knowledge



Source: Computations based on WTO RTA database.

As depicted in Figure 26, the frequency of RTAs with provisions related to biodiversity and traditional knowledge has increased significantly since 2008 with 19 North-South RTAs and 9 South-South RTAs. The RTA between the EU, Colombia and Peru is currently the notified agreement with the highest number of provisions related to biodiversity and traditional knowledge. These provisions, many of which refer to commitments established under the CBD, are found in an article on the protection of biodiversity and traditional knowledge in the chapter on intellectual property as well as in a specific article on biological diversity in the chapter on trade and sustainable development. Besides recognizing the importance and value of biological diversity as well as the contribution of their indigenous and local communities' traditional knowledge to culture and economic and social development, the parties reaffirm their sovereign rights over their natural resources and recognise their rights and obligations under the CBD with respect to access to genetic resources, and the fair and equitable sharing of benefits arising from the utilization of these genetic resources. Accordingly, the parties shall, subject to their domestic legislation, respect and maintain indigenous and local communities' traditional knowledge, innovations and practices relevant for the conservation and sustainable use of biological diversity. The parties shall also promote a wider application of such knowledge, innovations and practices conditioned to the prior informed consent of the holders of such knowledge, innovations and practices, and encourage the equitable sharing of the benefits arising from their utilisation. The parties further acknowledge the usefulness of requiring the disclosure of the origin or source of genetic resources and associated traditional knowledge in patent applications, and will therefore provide, in accordance with their domestic law, for applicable effects of any such requirement. Several of the other provisions refer to cooperation on various issues related to biodiversity and traditional knowledge, such as the training of patent examiners in reviewing patent applications related to genetic resources and associated traditional knowledge.

The others RTAs with a large number of specific provisions involve mainly Peru (with Panama, Costa Rica, the EFTA states and the United States) and Colombia (with the EFTA states and the United States). Although the RTAs to which Peru is a party with Costa Rica and Panama contain a relatively smaller number of provisions compared to the RTA between the EU, Colombia and Peru, the language of most its provisions on biodiversity and traditional knowledge is more specific than any other RTAs. In particular, both RTAs require that access to biological and genetic

resources and traditional knowledge be subject to prior informed consent of the party's country of origin and agreed on mutually terms, subject to domestic legislation. Under both RTAs, the parties shall encourage measures to ensure fair and equitable sharing of benefits arising from the use of biological and genetic resources and their derivatives and traditional knowledge. Each Party shall further promote political, legal and administrative measures to ensure full compliance with the conditions of access to biological and genetic resources of biodiversity. In that context, the parties shall require, subject to domestic legislation, that the legal access to biological and genetic resources or traditional knowledge is demonstrated in the patent applications developed from such resources or knowledge, including the disclosure of origin of resources or traditional knowledge.

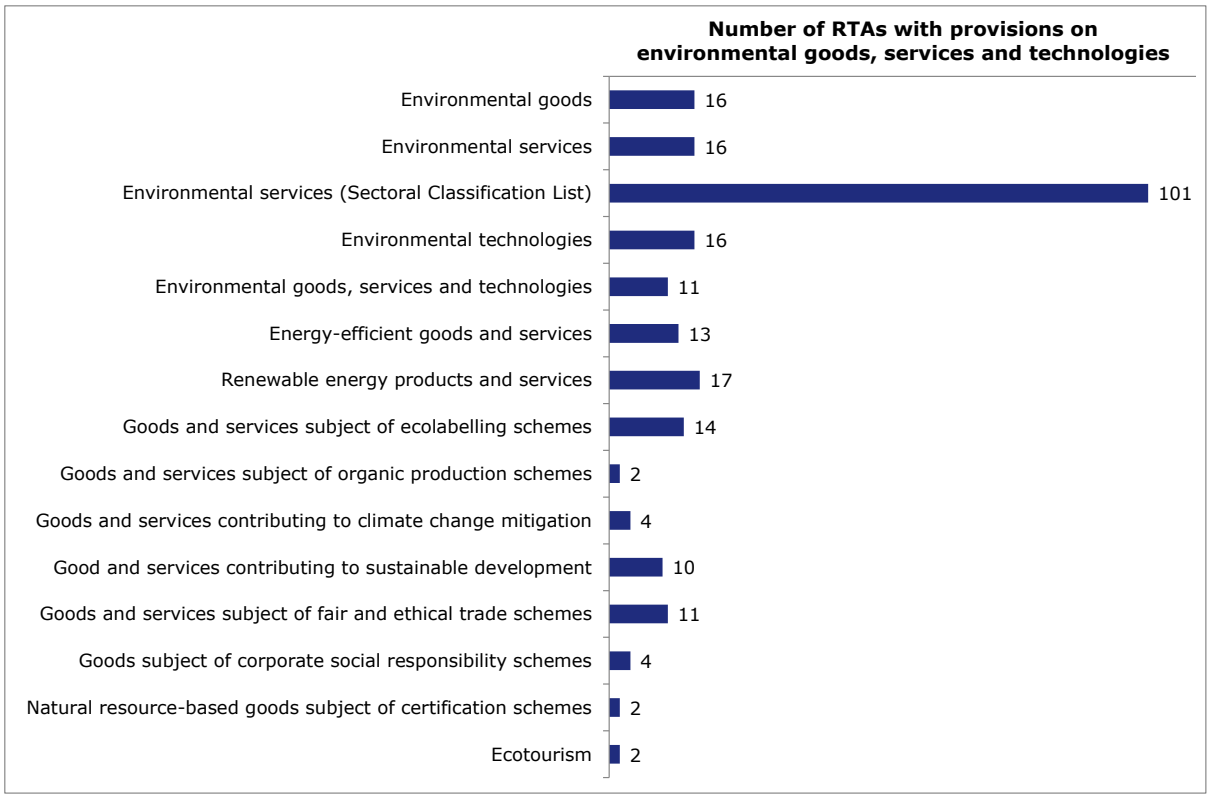
5.6 Trade in Environment-related goods, services and technologies

Much like other environmental issues, the importance of environmental goods, services and technologies, including facilitating its development, application, dissemination, trade and transfer, has been recognized on several occasions at the international level. Paragraph 31(iii) of the 2001 Doha Ministerial Declaration instructs WTO members to negotiate, without prejudging the outcome, on the reduction or, as appropriate, elimination of tariff and non-tariff barriers of environmental goods and services with a view to enhancing the mutual supportiveness of trade and environment. The zero draft of the Outcome Document adopted at the 2012 UN Conference on Sustainable Development (Rio+20) stresses in paragraph 281 the importance of achieving progress in addressing trade in environmental goods and services, while reaffirming the critical role that a universal, rules-based, open, non-discriminatory and equitable multilateral trading system, as well as meaningful trade liberalization, can play in stimulating economic growth and development worldwide. At the regional level, the Asia-Pacific Economic Cooperation (APEC) 2012 Vladivostok Declaration endorses APEC members' commitment to reduce applied tariff rates of 54 environmental goods to 5 per cent or less by the end of 2015 taking into account economies' economic circumstances and without prejudice to their positions in the WTO. More recently, a group of 17 countries are taking part in the negotiation of a plurilateral agreement on environmental goods since July 2014.

Provisions referring to trade in environment-related goods, services and technologies have been included in an increasing number of RTAs, namely 129 agreements. Similar to many other types of environment-related provisions, the majority of the provisions regarding environment-related goods, services and technologies are idiosyncratic and mentioned in a single or few RTAs. Part of the heterogeneity of this type of provisions relates to the scope of the environmental goods, services and technologies specified. Some provisions refer only to goods (found in 17 RTAs), services (103 RTAs) or technologies (4 RTAs). Other provisions cover both goods and services (10 RTAs) or goods, services and technologies (2 RTAs).

Although there is no internationally-agreed definition of environmental goods, services and technologies, as highlighted in Figure 27, some provisions mention broadly environmental goods and/or services, while others refer to specific categories of environmental categories, such as products and services related to energy efficiency or (sustainable) renewable energy, or subject of ecolabelling schemes. The scope of most provisions refers to environmental services mentioned in the parties' schedules services commitments, which include sewage services, refuse disposal, sanitation and similar services, reducing vehicle emissions, noise abatement services, as well as nature and landscape protection services. Some other provisions consider goods and services benefiting sustainable development, listing for instance goods and services subject of fair and ethical trade schemes or corporate social responsibility and accountability schemes. A few provisions also refer to goods and services contributing to climate change mitigation and adaptation or related to organic production.

Figure 27: Scope and categories of environmental goods and services listed in RTAs



Source: Computations based on WTO RTA database.

Overall, the nature and scope of provisions on environment-related goods, services and technologies range from (i) best endeavour language promoting, including through cooperation, trade but also (foreign) investment in environmental goods and services to firmer commitments such as (ii) the elimination of all tariffs on an agreed list of environmental goods and (iii) specific commitments on environmental services.

5.6.1 Promotion of trade of environmental goods and services

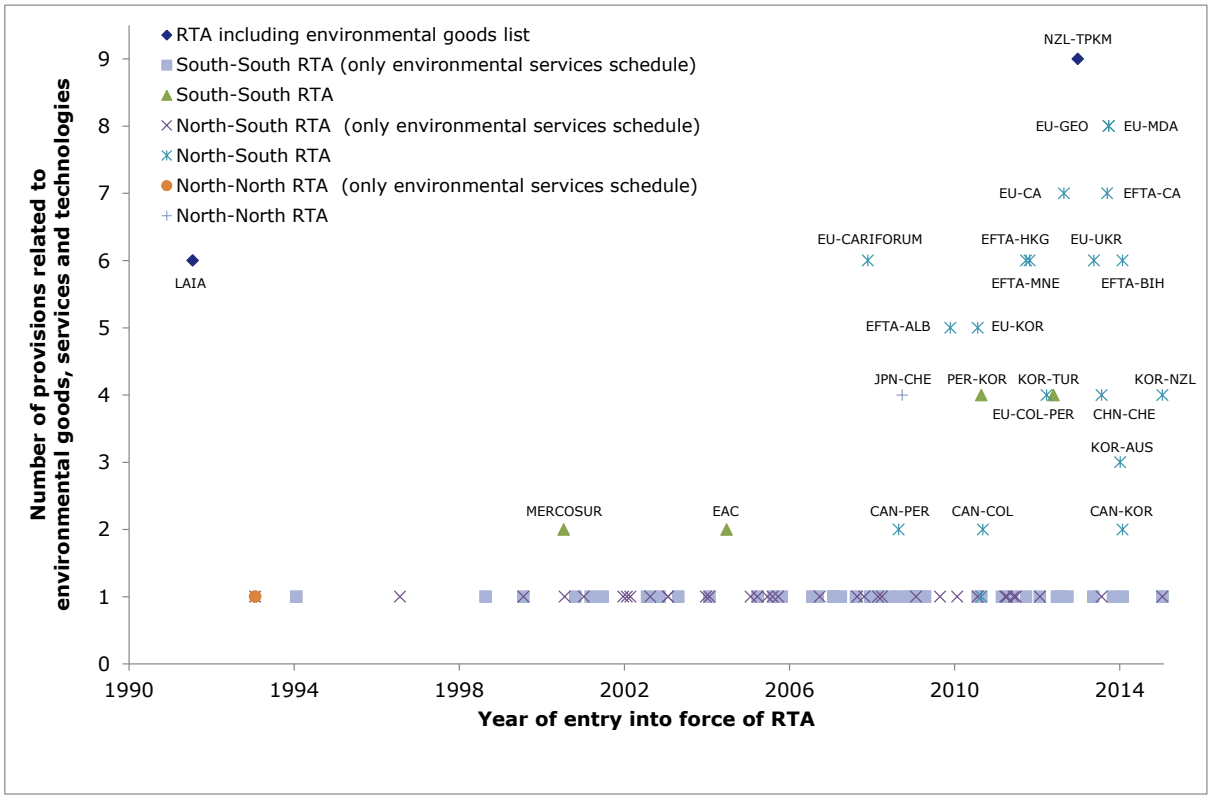
Provisions referring to the facilitation and promotion of development and trade of environmental goods, services and technologies are found in 26 RTAs. As reported in Figure 28, the frequency of RTAs with such provisions has increased significantly since 2008. Most of the provisions related to environmental goods, services and technologies are included in 20 agreements negotiated between developed and developing countries, including the EU, the EFTA states, China, the Republic of Korea, New Zealand and Switzerland. The nature and scope of these provisions differ across agreements, ranging from best endeavour language promoting, including through cooperation, trade but also (foreign) investment in environmental goods and services to more specific commitments.

The most common provision, incorporated in 15 RTAs, stipulates that the parties shall strive or endeavour to facilitate and promote trade and foreign direct investment in environmental goods, services and technologies, including through addressing related non-tariff barriers. A related provision, found in the RTAs negotiated by the EU with the Republic of Moldova and Georgia, refers to the parties' agreement to promote trade in goods that contribute to environmentally sound practices, including goods that are the subject of voluntary sustainability assurance schemes such as fair and ethical trade schemes, eco-labels, and certification schemes for natural resource-based products. Another provision, included in the RTAs signed by the EFTA states with Albania, Bosnia and Herzegovina, and Montenegro, and the RTA between China and Switzerland, specifies that the parties shall encourage cooperation between enterprises in relation to goods, services and technologies that contribute to sustainable development and are beneficial to the environment. In four of these five RTAs, the parties further agree to exchange views and may consider, jointly or

bilaterally, cooperation in the facilitation and promotion of foreign investment, trade in and dissemination of goods and services beneficial to the environment (and those contributing to sustainable development). Other cooperation provisions identify various areas of cooperation, including the development and adoption of environmental goods, services and technologies. For instance, the United States and Morocco's joint statement on environmental cooperation lists as priorities the promotion of the environmental technology business sector's growth and improvement of small- and medium-sized businesses' awareness of opportunities to access global markets through improved environmental technologies, practices, and techniques. A limited number of RTAs mention explicitly cooperation on technology transfer. The environmental cooperation mechanism established under the RTA between Nicaragua and Chinese Taipei includes in its program of work potential activities related to facilitating technology development and transfer and training related to clean production technologies, water protection, conservation and preservation, hazardous and non-hazardous waste management, and the monitoring and management of biodiversity and endangered species.

Some of the other provisions on environmental goods, services and technologies are slightly more specific. The RTAs negotiated by Japan with Brunei Darussalam and Thailand explicitly refer to technology transfer and encourage favourable conditions for the transfer and dissemination of technologies that contribute to the protection of environment, consistent with the adequate and effective protection of intellectual property rights. Provisions promoting trade and dissemination of products and technologies supporting climate-change related goals are also included in a limited number of RTAs. In particular, the parties of the RTA between the EU, Colombia and Peru agree to facilitate the removal of trade and investment barriers to access to, innovation, development, and deployment of goods, services and technologies that can contribute to climate change mitigation or adaptation, taking into account developing countries' circumstances. Instead of referencing to some broad categories of environmental goods and services, the provision included in the RTA between the Republic of Korea and Peru refers to the parties' agreement to identify a list of environmental goods and services of mutual interest, modified upon request, and to facilitate their trade.

Figure 28: Evolution of provisions related to environmental goods and services



Source: Computations based on WTO RTA database.

5.6.2 List of duty-free environmental goods

Only two notified agreements include provisions that go beyond mentioning certain categories of environmental goods or the intention to identify a list of environmental goods by referring to a specific list of environmental goods subject to tariff elimination.

The Partial Cooperation and Trade Agreement between Argentina, Brazil and Uruguay, as part of the Latin American Integration Association, on Goods Used in the Defence and Protection of the Environment also includes a commitment to identify goods used for environmental protection to be granted free movement.[38] Additional protocols were signed in 1993 and 1994 establishing a list of 58 tariff lines at the 10 digits-level for Argentina, 78 for Brazil and 63 for Uruguay. These tariff lines cover, among others, equipment, materials and products, including parts and components, used to measure, detect and mitigate pollution, protect fauna and flora, reforest and exploit alternative sources of energy. The agreement specifies that the trade among the parties of these products is exempted from tariffs, taxes and non-tariff restrictions. The parties further undertake to facilitate, in emergency situation, the transit and permanent stays of the persons who come back to their respective countries in order to participate in joint environmental protection activities. Similarly, the parties undertake to facilitate, in emergency situation, the temporary admission in and exit from their respective territories of planes, boats and other vehicles, including operators and equipment on board, heading to participate in environmental protection activities.

More recently, the environmental side agreement associated with the RTA between New Zealand and Chinese Taipei, which as shown in Figure 28, incorporates the highest number of different provisions related to environmental goods and services, includes a list of 132 environmental goods. This environmental goods list, whose tariff are to be completely eliminated, is included in the RTA's annex and reports the HS Code (2012), the associated HS 6-digit description and additional product specification (if necessary) as well as the environmental justification of these environmental goods. The agreement defines environmental goods, as products which positively contribute to the green growth and sustainable development objective of the parties. The 132 products encompass equipment for renewal energy, pollution reduction, and environmental monitoring and control. Besides the commitment to eliminating the tariffs of the environmental goods list, the RTA between New Zealand and Chinese Taipei includes provisions related to environmental services, defined as services directly related to the investment, sale, delivery or installation of environmental goods. The definition of environmental services also includes the environmental services sector falling under the WTO classification MTN.GNS/w/120 or the United Nations provisional CPC, 1991. The parties further undertake to facilitate the movement of business persons involved in the sale, delivery or installation of environmental goods or the supply of environmental services. The parties also endeavour to address any non-tariff barriers impeding trade in environmental goods and services identified by any of the parties. In order to mitigate non-tariff barriers, the parties agree to encourage the application of good regulatory principles in the design of any future standards and regulations relating to environmental goods and services. Some of these principles include transparency, proportionality, a preference for least trade-distorting measures, and the use of international agreed standards.

5.6.3 Schedule of commitments on environmental services

Besides provisions promoting trade in environmental goods, services and technologies, a large number of RTAs, namely 101 agreements, include specific commitments on the liberalization of environmental services. While a complete review of the environmental services commitments encountered in RTAs is outside the scope of this study[39], a preliminary analysis shows that specific commitments cover the environmental services sector, as defined in the United Nations provisional Central Product Classification (CPC, 1991), namely sewage services, refuse disposal services, sanitation services, cleaning of exhaust gases, noise abatement services, nature and landscape protection services, and other environmental protection services.

[38] Uruguay joined in 1994 the partial cooperation and trade agreement negotiated by Argentina and Brazil in 1992.

[39] See WTO (2010) for more information on environmental services.

In some cases, environmental services commitments go beyond WTO GATS commitments. For instance, under the RTA between Mexico and Costa Rica, Mexico has fully liberalized trade in environmental services, with the exception of horizontal limitations on public services or public utilities, which were completely excluded from its GATS schedule. Similarly, unlike its GATS schedule, the EU has added under the RTA with Chile a commitment to market access and national treatment with regard to commercial presence for water for human use, subject only to horizontal limitations.

Some RTAs also include negative lists, whereby all covered sectors and sub-sectors are assumed to be liberalized, unless non-conforming measures are incorporated in the annex to the RTA. In other words, an environmental service is assumed to be liberalized, unless it is explicitly listed in the RTA. In a number of RTAs, some specific environmental services, such as the provision of water supply, wastewater services, solid and hazardous waste management, and sanitation services, are subject to some restrictions and included on negative lists. These reservations take various forms, such as the existence of a public monopoly, nationality requirements, concession requirements, or obligation to establish a commercial presence.

5.7 Natural resources management and specific environmental issues

Along with biodiversity and environmental goods and services, a number of other environmental issues, such as natural resources management and climate change, have increasingly been the object of specific provisions in some of the most recent RTAs.

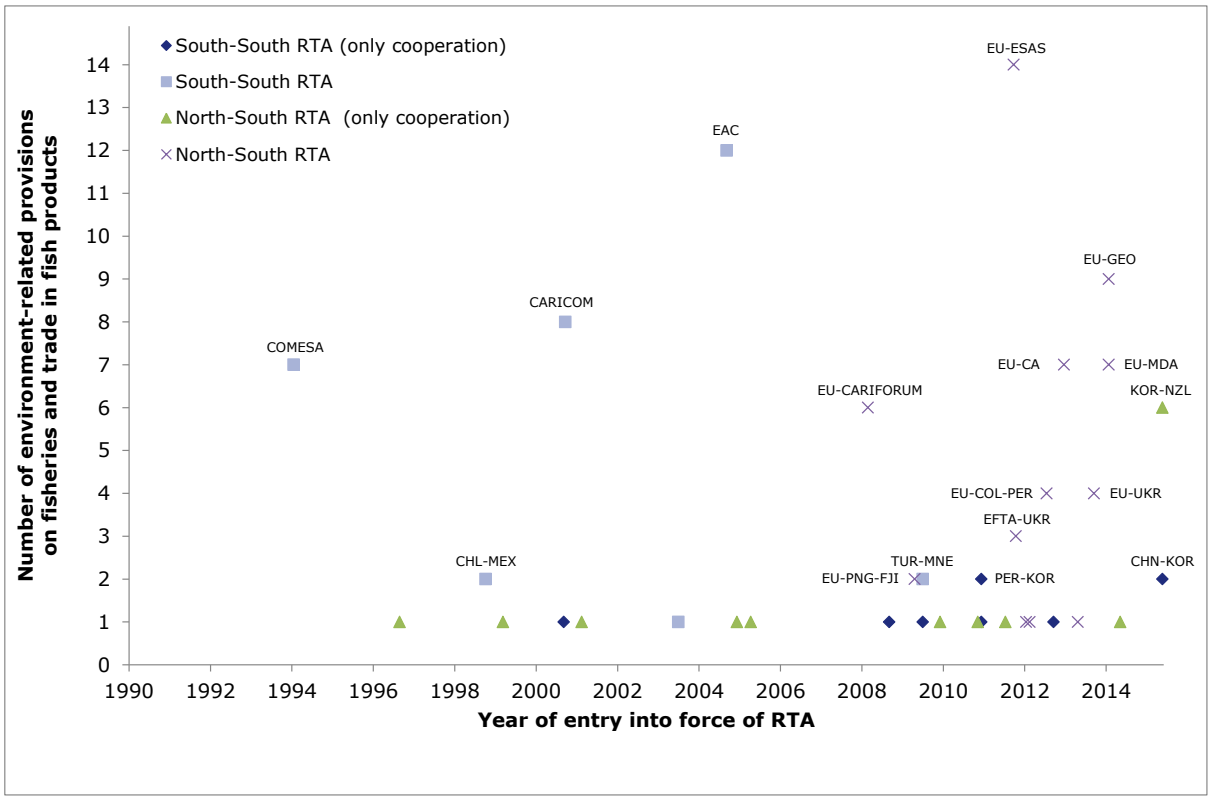
5.7.1 Fisheries and trade in fish products

Environment-related provisions on fisheries and trade in fish products have been incorporated into a limited but increasing number of RTAs, namely 36 agreements.[40] Similar to other types of environment-related provisions, environment-related provisions on fisheries are particularly heterogeneous in terms of scope and wording, with more than 80 different forms identified. The scope of these provisions ranges from best endeavour language promoting, including through cooperation, sustainable fisheries to more specific commitments, such as the adoption of measures to monitor and control fishing activities. The most common form of environment-related provisions on fisheries, included in 24 RTAs, identifies cooperation in the promotion of sustainable development and management of fisheries. Ten of these 24 RTAs further refer to cooperation in the fight against illegal, unreported and unregulated fishing activities (IUU). The remaining other environment-related provisions on fisheries are idiosyncratic and included in a single or couple of RTAs.

As highlighted in Figure 29, the number of RTAs with such provisions, mainly negotiated between developed and developing countries, has increased since 2008. The interim Economic Partnership Agreement between the EU and the Eastern and Southern Africa (ESA) States include the highest number of different environment-related provisions on fisheries. Most of these provisions are found in a specific chapter on fisheries. Besides provisions specifying the objectives of cooperation in fisheries, including ensuring effective monitoring control and surveillance necessary for combating IUU fishing and promoting effective exploitation, conservation and management of living marine resources, the agreement establishes a number of principles and commitments. The agreement stipulates that the precautionary approach shall be applied in determining levels of sustainable catch, fishing capacity and other management strategies to avoid or reverse undesirable outcomes such as over-capacity and over-fishing, as well as undesirable impacts on the ecosystems and artisanal fisheries. Other provisions include the possibility to take appropriate measures in order to ensure the sustainability of the artisanal and coastal fishery; the promotion of the membership to the Indian Ocean Tuna Commission and other relevant fisheries organizations; flag state responsibility; the establishment of a vessel monitoring system and development of other mechanisms to ensure effective monitoring, control and surveillance. The agreement further stipulates that the parties shall contribute to measure to ensure that fish trade supports environmental conservation and safeguards against stock depletion. The RTA lists also the protection and management of coastal and marine resources as an area of cooperation.

[40] Provisions on fisheries do not necessarily refer to environment-related issues. In total, 51 RTAs include specific provisions referring to fisheries, mainly on cooperation.

Figure 29: Evolution of environment-related provisions related to fishery



Source: Computations based on WTO RTA database.

The Protocol on the Establishment of the EAC Common Market and the Protocol on Environment and Natural Resources Management incorporate also a high number of provisions on fisheries. The parties agree, among other things, to cooperate through the adoption of common policies and regulations for the conservation, management and development of fisheries resources and the establishment of common fisheries management and investment guidelines for inland and marine waters. The parties shall further develop effective institutions and mechanisms for sustainable management of fisheries resources and put in place effective mechanisms for enforcement of fisheries-related laws. Other commitments include determining the use of appropriate fishing gear and methods and promoting the adherence to international fish quality standards.

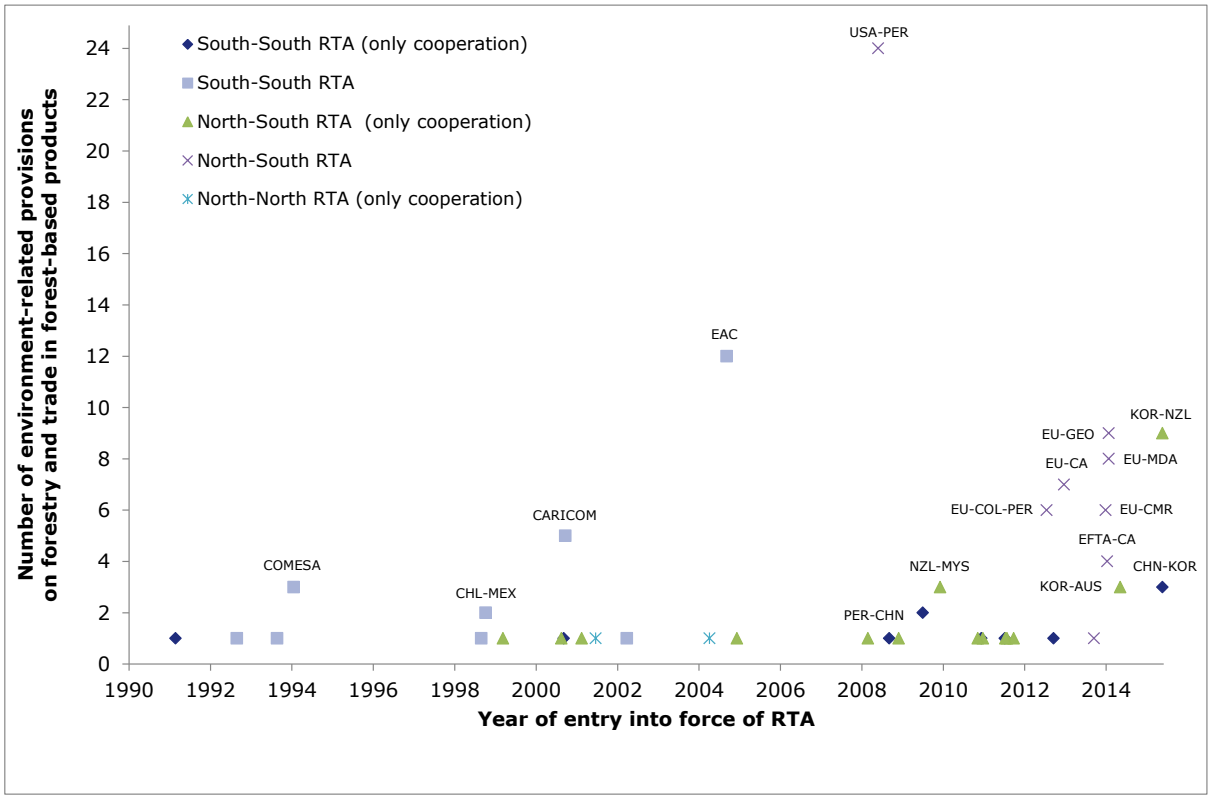
More recently, the RTAs to which the EU is a party with Colombia and Peru, Central America, the Republic of Moldova, Ukraine and Georgia incorporate a relatively high number of environment-related provisions on fisheries. Many of these provisions are found in a specific article on trade in fish products in the chapter on trade and sustainable development. For instance, the RTAs negotiated by the EU with the Republic of Moldova and Georgia include provisions committing the parties to promote best practices in fisheries management, take effective measures to monitor and control fishing activities, cooperate with and within relevant regional fisheries management organisations and implement policies and measures to exclude IUU products from trade flows and their markets. The agreement between the EU and Georgia further commits the parties to comply with long term conservation measures and sustainable exploitation of marine living resources as defined in the main UN and FAO instruments relating to these issues, and to promote coordinated data collection schemes and scientific cooperation between the parties. Another more specific provision included in the RTA between the EU and Central America stipulates that the parties undertake to adhere to and effectively implement the principles of the Agreement for the Implementation of the Provisions of the UNCLOS relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, in relation, among other things, to sustainable use, conservation and management; implementation of effective monitoring, control and inspection measures; and the duties of the flag and port states. The parties to the agreement also agree, to the extent they have not yet done so, to adopt port state measures in line with the

FAO Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, to implement control and inspection schemes, as well as incentives and obligations for a sustainable management of fisheries and coastal environments in the long term.

5.7.2 Forestry and trade in forest-based products

Environment-related provisions on forestry and trade in forest-based products are found in 40 RTAs.[41] Just like environment-related provisions on fisheries, provisions on forestry are highly heterogeneous in terms of scope and language, with more than 100 different forms identified. The scope of these provisions varies between best endeavour language promoting sustainable forestry management to more specific commitments, such as the adoption of measures to combat illegal logging and related trade. The most common form of environment-related provisions on forestry, incorporated in 28 RTAs, identifies cooperation in the promotion of sustainable forestry management, including in addressing deforestation. Thirteen of these 28 RTAs further refer to cooperation in the promotion of trade in legal and sustainable forest products and in combating illegal logging and its associated trade. Most of the remaining environment-related provisions on forestry are specific to a single or couple of RTAs and refer to cooperation.

Figure 30: Evolution of environment-related provisions related to forestry



Source: Computations based on WTO RTA database.

[41] Provisions on forestry do not necessarily refer to environment-related issues. In total, 52 RTAs include specific provisions referring to forestry, mainly on cooperation.

As depicted in Figure 30, the inclusion of a high number of environment-related provisions on forestry is a relatively recent phenomenon. The RTA between the United States and Peru is the agreement with the highest number of provisions on forestry. These provisions are included in an annex on forest sector governance setting out detailed commitments promoting legal trade in timber products, combatting trade associated with illegal logging and illegal trade in wildlife, and furthering sustainable management of forest resources, among other things.[42] In particular, under the annex, Peru shall increase within 18 months after the date of entry into force of the agreement the number and effectiveness of personnel devoted to enforcing its laws, regulations, and other measures relating to the harvest of, and trade in, timber products. Peru shall further identify within its government a focal point, with appropriate and sufficient authority and staff to investigate violations of laws and regulations for forest sector governance. The focal point shall (a) have a transparent process for the reporting of forest sector crimes; (b) ensure coordination and the accurate and timely flow of information between relevant technical and financial agencies; and (c) where appropriate prosecute or refer violations for prosecutions.

The annex further requests Peru to provide criminal and civil liability at adequate deterrent levels for actions that impede or undermine the sustainable management of Peru's forest resources. Examples of such actions include (i) threats, violence, intimidation; (ii) knowingly creating, using, providing false information; (iii) obstructing an investigation, verification, audit; (iv) knowingly harvesting or purchasing timber or timber products from areas or persons not authorized under Peruvian law; and (v) providing to a government official, or receiving as a government official, compensation in exchange for particular action taken in the course of that official's enforcement of Peru's laws relating to the harvest of, and trade in, timber products. Peru shall also impose criminal and civil penalties designed to deter violations of laws, regulations and other measures relating to the harvest of, and trade in, timber products, by (i) substantially increasing criminal penalties prescribed in Article 310 of Peru's Penal Code; and (ii) suspending the right to export the product as to which a law, regulation, or other measure has been violated. The parties are also committed to cooperate together in capacity-building activities to implement the actions required to promote the sustainable management of Peru's forest resources.

Furthermore, Peru shall conduct periodic audits of producers and exporters in its territory of timber products exported to the United States, and verify that exports of those products to the United States comply with all applicable laws, regulations, and other measures of Peru governing the harvest of, and trade in, timber products. The United States on the other hand is granted the right to initiate procedures in Peru to evaluate the compliance of a Peruvian producer or exporters with forestry laws and regulations. On the written request of the United States, Peru shall verify whether, with respect to a particular shipment of timber products from Peru to the United States, the exporter or producer of those products has complied with applicable laws, regulations, and other measures of Peru governing the harvest of, and trade in, those products, by visiting the premises of all enterprises in the chain of production or transportation for the timber products unless agreed otherwise. The United States may further seek to have its own officials participate in this visit. Peru shall provide the United States a written report on the results of any verification it conducts in response to a request. Within a reasonable time after Peru provides a report, the United States shall notify Peru in writing of any actions it will take with respect to the matter, and the duration of such actions. These actions may include: (i) denying entry to the shipment that was the subject of the verification and (ii) where an enterprise has knowingly provided false information to Peruvian or United States officials regarding a shipment, denying entry to products of that enterprise derived from any tree species listed in the CITES' appendices. The RTA's annex further stipulates that nothing in the annex shall limit the authority of each party to take action consistent with its domestic legislation implementing the CITES.

Similar to the case of provisions on fisheries, the Protocol on the Establishment of the EAC Common Market and the Protocol on Environment and Natural Resources Management incorporate also a high number of environment-related provisions on forestry. The parties commit to harmonise and enforce national policies, laws and programmes in order to promote sustainable forest management. The parties further undertake to cooperate in all activities relating to development, conservation, sustainable management and utilisation of all types of forests, trees, and trade in forest products throughout the community.

[42] The US-Peru RTA's annex on forest sector governance has been the object of extensive analysis by scholars (See Jinnah, 2011).

A specific article on trade in forest products is found in the chapter on trade and sustainable development of the RTAs to which the EU is a party with Cameroon, Colombia and Peru, Central America, the Republic of Moldova, Ukraine and Georgia and the RTA between the EFTA states and Central America. Most of the provisions in these articles focus on the parties' commitment to work together to improve forest law enforcement and governance and promote trade in legal and sustainable forest-based products. The RTAs negotiated by the EU with the Republic of Moldova and Georgia include more specific provisions, such as the commitment to adopt measures to promote the conservation of forest cover and combat illegal logging and related trade, including with respect to third countries, as appropriate and to promote the listing of timber species under the CITES where the conservation status of those species is considered at risk. Both agreements, as well as the RTAs negotiated with Cameroon and Central America refer also to the possibility to conclude bilateral agreements, such as the forest law enforcement governance and trade (FLEGT) voluntary partnership agreement.

5.7.3 Energy and mineral resources

Environment-related provisions on energy and mineral resources are incorporated in an increasing number of RTAs, namely 69 agreements.[43] Similar to other types of environment-related provisions, most of environment-related provisions on energy and mineral resources are specific to a single or couple of RTA, making it particularly difficult to identify commonalities. These provisions range from best endeavour language promoting, mainly through cooperation, sustainable energy management to more specific commitments regarding trade in energy-based products, in particular export restrictions.

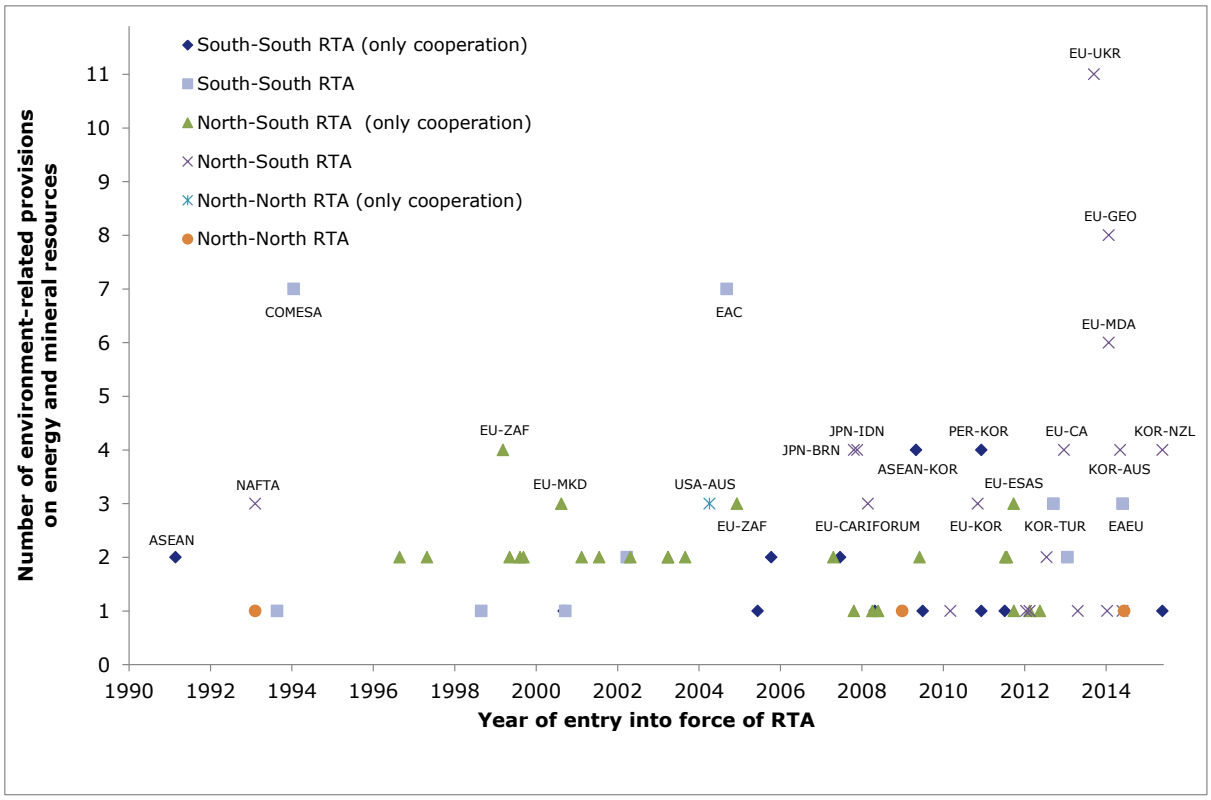
The most common form of environment-related provisions on energy and mining, included in 48 RTAs, identify energy and mineral resources as an area of cooperation. Some of these provisions, found in 43 RTAs, focus on alternative and/or renewable energy, while other provisions, included in 36 agreements, concern energy conservation and efficiency. Other environment-related areas of cooperation include mining and mineral resources management and nuclear safety found, respectively, in 13 and 6 RTAs. As discussed previously, several provisions on environmental goods and services, included in 18 RTAs, promote goods and services beneficial to the environment or sustainable development, including sustainable renewable energy and/or energy-efficient products and services. The remaining environment-related provisions on energy and mineral resources address trade related energy issues, including quantitative restrictions and domestic measures on energy and/or mineral products.

As highlighted in Figure 31, the number of RTAs incorporating environment-related provisions on energy and mineral resources has accelerated in the last five years. Unlike other provisions on natural resources, such as fisheries and forestry, most environment-related provisions on energy and mining are found in specific articles on energy and/or mineral resources in 34 RTAs or in a dedicated chapter addressing specific energy- and mining-related issues in eight RTAs.[44] The NAFTA is the first agreement to incorporate a chapter on energy and basic petrochemicals with a number of provisions regarding import and export restrictions, export measures, including taxes, regulatory measures, and national security measures on energy and petrochemical goods. While most of these provisions do not refer explicitly to the environment, one particular provision stipulates that a party may adopt or maintain export restriction of energy or basic petrochemical goods otherwise justified, among others, under the GATT's general exceptions applied to measures relating to the conservation of exhaustible natural resource (Article XX(g)), as long as specific conditions are met, such as the restriction does not require the disruption of normal channels of supply to that other party.

[43] Provisions on energy and mineral resources do not necessarily refer to environment-related issues. In total, 91 RTAs include specific provisions referring to energy and mineral resources, mainly on cooperation.

[44] These are the NAFTA, Japan-Indonesia FTA, Brunei Darussalam-Japan FTA, EU-the Republic of Moldova FTA, EU-Ukraine FTA, EU-Georgia FTA, EAEU, and Japan-Australia FTA.

Figure 31: Evolution of environment-related provisions related to energy



Source: Computations based on WTO RTA database.

The RTA between Japan and Australia includes a different provision specifying that each party shall endeavour not to introduce or maintain any prohibitions or restrictions on the exportation or sale for export of any energy and mineral resource goods taken consistently with the GATT-1994's Article XX(g). A related provision further stipulates that when a party intends to adopt an export prohibition or restriction on an energy and mineral resource good in accordance with the GATT-1994's Article XX(g), that party shall seek to limit such prohibition or restriction to the extent necessary, giving due consideration to its possible negative effects on the other party's energy and mineral resources security. The party shall also provide notice in writing, as far in advance as practicable, to the other party of such prohibition or restriction and its reasons together with its nature and expected duration. In addition, the party shall, on request, provide the other party with a reasonable opportunity for consultation with respect to any matter related to such prohibition or restriction. Similar provisions but without referring to the GATT-1994's Article XX(g) are included in the RTAs between Japan and Brunei Darussalam and between the Republic of Korea and Australia.

The highest number of different environment-related provisions on energy is included in the RTA between the EU and Ukraine. The trade-related energy chapter in that agreement covers rules on pricing, transport and transit of energy goods. For instance, the article on customs duties and quantitative restrictions specifies that nothing shall preclude quantitative restrictions on the import and export of energy goods, or measures having equivalent effect, justified on various grounds, including public policy, public security or protection of human, animal or plant life or health, as long as such restrictions or measures do not constitute a means of arbitrary discrimination or a disguised restriction on trade between the parties. Expedited dispute settlement procedures are established to conciliate urgent energy disputes. An early warning mechanism is also established to prevent and rapidly react to an emergency situation or to a threat of an emergency situation regard energy supply security. Other provisions commit the parties to establish a legally distinct and functionally independent regulator in order to ensure a competitive and efficient gas and electricity markets. The trade-related energy chapter stipulates also rules on the access to and exercise of the activities of prospecting, exploring for and producing hydrocarbons, including licensing and licensing conditions.

A chapter on trade-related energy with relatively similar provisions is also included in the RTAs to which the EU is a party with the Republic of Moldova and Georgia. The language of certain provisions differs slightly compared to some of the provisions found in the RTA with Ukraine. For instance, the article on the organization of markets in the RTA with Georgia stipulates that the parties shall ensure that energy markets are operated with a view to achieving competitive, secure and environmentally sustainable conditions. A related provision further specifies that although the parties shall not discriminate between enterprises as regards rights or obligations, the parties may impose on enterprises, in the general economic interest, clearly defined, transparent, proportionate and verifiable obligations which may relate to environmental protection, including energy efficiency, energy from renewable sources and climate protection. The Treaty on the EAEU includes a protocol on the procedures, management, operation and development of common markets for gas, oil and petroleum products. One of its provisions specifies that the creation of the common market of oil and petroleum products shall follow various basic principles, including providing environmental safety.

Both RTAs to which Japan is a party with Indonesia and Brunei Darussalam provide a specific article on environmental aspects with different provisions in the chapter on energy (and mineral resources). The agreement with Indonesia specifies that each party confirms the importance of avoiding or minimizing, in an economically efficient manner, harmful environmental impacts of all activities related to energy and mineral resources in its area, taking into account its obligations under those international agreements concerning environment to which it is a party. The RTA with Brunei Darussalam is more specific and stipulates that each party shall endeavour to minimise, in accordance with its applicable laws and regulations, in an economically efficient manner, harmful environmental impacts of all activities related to energy in its area. Both agreements further commit the parties to take account of environmental considerations throughout the process of formulation and implementation of its policy on energy. The parties shall further encourage favourable conditions for the transfer and dissemination of technologies that contribute to the protection of environment, consistent with the adequate and effective protection of intellectual property rights. In addition, the parties shall promote public awareness of environmental impacts of activities related to energy and of the scope for and the costs associated with the prevention or abatement of such impacts.

Other RTAs with a relatively high number of environment-related provisions on energy and mineral resources include the Protocol on the Establishment of the EAC Common Market and the associated Protocol on Environment and Natural Resources Management as well as the Agreement establishing the COMESA. Under the EAC's Protocol, the parties agree, among other things, to promote joint exploration, efficient exploitation and sustainable utilisation of shared mineral resources, to harmonize mining regulations to ensure environmentally friendly and sound mining practices and to adopt common policies to ensure joint fossil exploration and exploitation along the coast and rift valley. The associated Protocol on Environment and Natural Resources Management further commit the parties, among other things, to develop common strategies for ensuring the development and efficient use of renewable energy sources. Relatively similar provisions, albeit formulated differently, are found in the COMESA's agreement. For instance, the parties agree to include environmental management and conservation measures in mining activities in the common market. The parties further undertake to accede to international agreements that are designed to improve the management of energy resources, develop new renewable energy resources and coordinate the exchange of information on energy resources.

5.7.4 Climate change

Climate change has received considerable attention in the last 25 years, including through the adoption of the UN Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. Similarly, in the last 15 years, an increasing number of RTAs, namely 34 agreements include at least one provision referring explicitly to climate change, global warming or greenhouse gases reduction.[45]

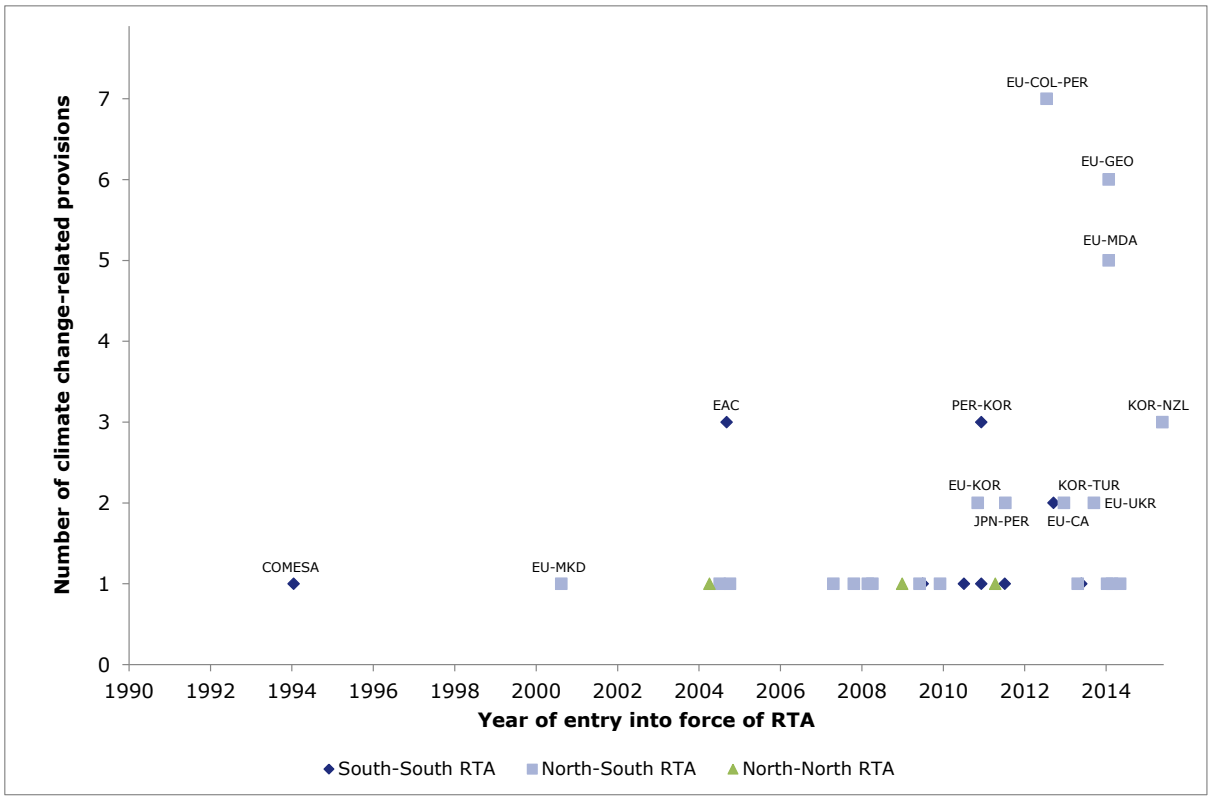
[45] Provisions referring to issues, such as energy efficiency or renewable energy, without any reference to climate change or carbon emissions have not been considered. If these provisions were to be considered as well, then the figure would increase to 59 RTAs.

As discussed throughout the study, environment-related provisions in RTAs are particularly heterogeneous across agreements, and climate change-related provisions are no exception. Most provisions referring to climate change, found in 28 RTAs, identify climate change mitigation and adaptation as one of the cooperation areas. Other provisions underscore the importance of addressing climate change, including through trade in environmental goods and services, while others refer to the development and adoption of climate change policies.

As reported in Figure 32, the RTA between the EU, Colombia and Peru is the agreement incorporating the highest number of different provisions related to climate change. The RTA reaffirms the parties' commitment to effectively implement in their laws and practices the Kyoto Protocol to the UNFCCC. In addition, other provisions are found in a specific article on climate change in the chapter on trade and sustainable development. The parties recognise that climate change is an issue of common and global concern that calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response. The parties are further resolved to enhance their efforts regarding climate change, which are led by developed countries, including through the promotion of domestic policies and suitable international initiatives to mitigate and to adapt to climate change. These efforts shall be enhanced on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions, and taking particularly into account the needs, circumstances, and high vulnerability to the adverse effects of climate change of those Parties which are developing countries. In that context, another provision specifies that the parties will promote the sustainable use of natural resources and will promote trade and investment measures that promote and facilitate access, dissemination and use of best available technologies for clean energy production and use, and for mitigation of and adaptation to climate change. The parties further agree to consider climate change actions, such as facilitating the removal of trade and investment barriers to access to, innovation, development, and deployment of goods, services and technologies that can contribute to mitigation or adaptation, taking into account the circumstances of developing countries; and promoting measures for energy efficiency and renewable energy that respond to environmental and economic needs and minimise technical obstacles to trade. The RTA also mentions various possible cooperation areas, including activities related to the reduction of emissions from deforestation and forest degradation (REDD) as well as activities related to aspects of the international climate change regime with relevance for trade.

The RTA between Peru and the Republic of Korea includes also a specific article on climate change. Under their international commitments, the parties agree to promote joint measures to limit or reduce the adverse effects of climate change. In addition, each party shall, within its own capacities, adopt policies and measures on issues such as improvement of energy efficiency; evaluating the vulnerability and adaptation to climate change, and research, promotion, development and use of new and renewable energy, technologies of carbon dioxide capture, and updated and innovative environmental technologies that do not affect food security or the conservation of biological diversity. The EAC's Protocol on Environment and Natural Resources Management provides also a specific article on climate change laying down various commitments, including the development and harmonization of the parties' laws, policies and strategies aimed at mitigating the effects of greenhouse gas emissions as well as and the manner and procedures for benefiting from the Clean Development Mechanism under the Kyoto Protocol. Other provisions establishing commitments include the one found in the Agreement establishing the COMESA, in which the parties agree to accede to the UNFCCC. More recently, the RTAs to which the EU is a party with the Republic of Moldova and Georgia incorporate also different climate change-related provisions found in a specific chapter on climate action and in the chapter on trade and sustainable development. In addition, another provision, also found in the RTA between the EU and Ukraine, commit the EU's counterpart to gradually approximate its legislation to the specific EU legislation and international instruments within stipulated timeframes.

Figure 32: Evolution of provisions related to climate change



Source: Computations based on WTO RTA database.

Most of the remaining climate change provisions are related to cooperation activities. For instance, both stabilisation and association agreements negotiated by the EU with the Former Yugoslav Republic of Macedonia and Croatia suggest enhancing cooperation in the development of strategies related to climate issues. Alternatively, the joint statement on trade and environment associated with the RTA between Peru and Japan confirms that both parties endeavour to promote, within their respective capacities and resources, the measures identified in the parties' joint statement on enhanced cooperation in environment and climate change issues. The RTA between the Republic of Korea and Turkey is slightly more specific and commit the parties to initiate cooperative activities on trade-related aspects of the current and future international climate change regime, including issues relating to global carbon markets, ways to address adverse effects of trade on climate, as well as means to promote low-carbon technologies and energy efficiency. Similarly, part of the cooperation in the RTA between the EU and Central America seeks to facilitate joint initiatives in the area of climate change mitigation and adaptation to its adverse effects, including the strengthening of carbon market mechanisms.

5.8 Environmental governance and procedural environmental rights

An increasing number of RTAs include environment-related provisions that build on Principle 10 of the UN Rio Declaration, which highlights the importance of environmental governance through (i) transparency, (ii) public participation, and (iii) access to justice.

5.8.1 Transparency in environmental matters

Transparency in environmental matters is often viewed as one of the key principles defining environmental governance. A number of principles established under the UN Rio Declaration on Sustainable Development refer to transparency. Principle 10 highlights the importance of having appropriate access to environment-related information held by public authorities, including information on hazardous materials and activities. Although the principle of transparency refers mainly to access to information, it is also linked to education and awareness on environmental

matters. In fact, access to information is often not fully exploited because of limited knowledge and lack of awareness on environment-related issues. Principle 10 of the UN Rio Declaration stresses the importance of promoting public awareness by making environment-related information available.

Given its cross-cutting nature, the notion of transparency in environmental matters is reflected in a relatively large number of environment-related provisions. Similar to other types of environment-related provisions, provisions on transparency, found in 78 RTAs, are characterized by high heterogeneity in terms of scope, depth and wording with more than 91 different forms identified. Overall, the transparency principle is explicitly or implicitly mentioned in different contexts, from information exchange to education and awareness on environmental laws and matters.[46]

5.8.1.1 Transparency in environmental laws and management

Provisions on transparency related to environmental laws and regulations as well as environmental management are found in 52 RTAs, and vary from the acknowledgement of the importance of transparency to commitments to publish, notify (to the other party) and exchange information on environmental laws and matters, including environmental laws enforcement. The most common form of provisions on transparency related to environmental laws and matters, included in 25 RTAs, consists of undertaking cooperation in exchanging information.[47] Six agreements also contain provisions on cooperative activities to promote and improve access to environmental information.

Another type of provision, found in 6 RTAs, stipulates that each party shall identify, in terms of tariff item and nomenclature under their respective tariffs, the measures, restrictions or prohibitions applied to imports or exports on grounds of protection of flora or fauna and the environment. This type of provisions is specific to five RTAs to which Mexico is a party with Central America, Chile and Peru, as well as the agreement between Costa Rica and Peru.

Another provision specific to eight RTAs to which Canada is a party with the United States and Mexico (NAFTA), Chile, Costa Rica, Peru, Colombia, Jordan, Panama, the Republic of Korea and Honduras commits the parties to ensure that their laws, regulations, and administrative rulings of general application respecting any matters covered by the environmental cooperation agreement (or the environment chapter in the case of the RTA with the Republic of Korea) are promptly published or otherwise made available in order to enable interested persons to be acquainted with them. Six of these eight agreements further request the parties to publish or otherwise make available in advance (to the extent possible) of any law, regulation or measure that it proposed to adopt, so that the other party or interested persons can provide comments.

The environmental cooperation agreements associated with the RTAs to which Canada is a party with the United States and Mexico (NAFTA), Chile, Costa Rica, Jordan, Panama and Honduras include another provision foreseeing the possibility for any party to notify and provide the other party with any credible information regarding possible violations of its environmental law. Such information has to be specific and sufficient to allow the other party to inquire into the matter. In addition, the notified party is expected to take appropriate steps in accordance with its domestic law to investigate the matter and respond to the other party.

The remaining provisions on transparency related to environmental laws and matters are specific to one or two RTAs. For instance, the EAC's Protocol on Environment and Natural Resources Management calls on the parties to ensure public authorities assist the public in gaining access to information in environmental management. The Protocol further requires each party to ensure that owners and public authorities, whose activities have significant impacts on the environment, inform the public, in a timely and effective manner, of the environmental impact of their activities and products.

[46] In addition, a number of transparency provisions apply to the operation of the RTA or environmental side agreement, including regarding the consultations and dispute settlement proceedings. These provisions are discussed in section 5.10 . Altogether, 79 RTAs include environment-related provisions on transparency.

[47] This figure does not take into account the transparency-related provisions found in the chapters on TBT and SPS measures.

5.8.1.2 Education and awareness on environmental laws and matters

Besides access to information on environmental laws and matters, 50 RTAs establish specific provisions related to education and awareness on environmental laws and matters, ranging from the promotion of environmental education and awareness to commitments and cooperation on related issues. The most common type of provisions on education and awareness aim at cooperating in the promotion of education (34 RTAs) and awareness (29 RTAs) in environment-related matters. The remaining other provisions on education and awareness are idiosyncratic or included in a few RTAs.

A provision specific to six RTAs, including the RTA between New Zealand and Chinese Taipei and the Trans-Pacific Strategic Economic Partnership's environmental cooperation agreement, requires each party to promote public awareness of its environmental laws by ensuring that information is available to the public regarding its environmental laws, regulations, policies and practices domestically. The RTAs negotiated by the United States with Australia, Peru, the Republic of Korea, and Colombia, contain a similar provision with a broader scope referring also to information regarding enforcement and compliance procedures, including procedures for interested persons to request the party's competent authorities to investigate alleged violations of its environmental laws. Four side agreements associated with the MERCOSUR, NAFTA, Canada-Chile FTA, and EAC also establish a commitment to promote (formal and informal) education in environmental matters, including environmental law.

5.8.1.3 Transparency on specific environment-related matters

A limited number of RTAs, namely 14 agreements, incorporate provisions on transparency in specific environmental matters, such as plant varieties, biodiversity, forestry management and environmental goods and services. For instance, the chapter on intellectual property rights of four RTAs to which Japan is a party with Malaysia, Thailand, the Philippines and Viet Nam, requires each party, in accordance with its laws and regulations, to take appropriate measures to publish or make easily available to the public information on applications for registrations of and registrations of new varieties of plants. The RTA between Peru and the Republic of Korea, under its chapter on intellectual property rights, calls on each party to endeavour to create condition to facilitate transparent access to genetic resources for environmentally sound uses. The RTAs to which the United States is a party with Peru and Colombia stipulate that the parties may make information publicly available about programs and activities, including cooperative programs, related to the conservation and sustainable use of biological diversity. The agreement between the EU and Colombia and Peru recognises the importance of having practices that, in accordance with domestic legislation and procedures, improve forest law enforcement and governance and promote trade in legal and sustainable forest products, which may include transparency in the management of forest resources for timber production.

5.8.2 Public participation in environmental matters

Transparency and public participation are inter-related concepts. While transparency is about the access to information on environment-related matters, public participation relates to the actual engagement of the public in environment-related decision-making (including environmental impact assessment) and/or implementation of environment-related activities (including the enforcement of environmental laws, policies and programs). Transparency is often a necessary condition to ensure active public participation. The public cannot fully and meaningfully participate on any matters (including environmental ones) if the relevant and timely information is not, or only partially, available. Public participation often contributes to the legitimacy and accountability of the decision adopted and implemented. The UN World Charter for Nature, adopted in 1982, was the first international declaration to recognize, in its Principle 23, that all persons, in accordance with their national legislation, shall have the opportunity to participate, individually or with others, in the formulation of decisions of direct concern to their environment.

Similar to the principle of transparency, public participation is a cross-cutting issue. As a result, the principle of public participation is mentioned in different contexts, which explains why many of these provisions are idiosyncratic. Provisions on public participation related to environmental matters are incorporated in 36 RTAs, ranging from the recognition of the importance and the promotion of public participation to the adoption of policies and cooperation related to public participation. [48]

The importance of public participation is explicitly recognized in a limited number of RTAs, from public participation in general, to the specific cases of forest resources management and biological diversity. Explicit promotion of the participation of civil society in addressing environmental issues, and in managing water resources and combating desertification is included in the MERCOSUR's Framework Agreement on the Environment and the EAC's Protocol on Environment and Natural Resources Management, respectively. Similarly, the United States and Australia's joint statement on environmental cooperation stipulates that the parties believe that public participation is an important means of enhancing environment stewardship, protection and conservation and sustaining natural resource management.

The EAC's Protocol on Environment and Natural Resources Management includes some of the more far-reaching provisions on public participation by requesting the parties not only to create an environment conducive for the participation of civil society and the public, among others, in environmental and natural resources management, but also to undertake to observe the principle of public participation in the development of policies related to environmental and natural resources management. In addition the protocol commits the parties to adopt common policies relating to the participation of the public in environmental and natural resources management.

Both RTAs to which the EU is a party with CARIFORUM States and the Republic of Korea, and the RTA between New Zealand and the Republic of Korea specify that the parties commit to developing, introducing and implementing any measures aimed at protecting the environment that affect trade between the parties in a transparent manner, with due notice and public and mutual consultation and with appropriate and timely communication to and consultation of non-state actors including the private sector. A relatively similar provision is included in the RTAs negotiated by the EU with Georgia, Ukraine and the Republic of Moldova. Focusing on environmental assessment, the environmental cooperation agreements negotiated by Canada with Colombia, Jordan, Panama and Honduras require each party to ensure that its environmental assessment procedures allow, in accordance with its law, for public participation in such procedures.

The remaining and most common provisions regarding public participation in environmental matters refer to cooperation. Several provisions, included in 9 RTAs, aimed at improving, promoting or strengthening mechanisms for public participation. Other provisions are slightly more specific and aimed at promoting public participation in environmental policy-making (found in 8 RTAs) or in natural resources and environmental management (6 RTAs).

5.8.3 Procedural guarantees and access to justice in environmental matters

The principles of procedural guarantees and access to justice in environmental matters are another sensitive issue related to environmental governance. Procedural guarantees refer to the fair and consistent application of judicial and administrative proceedings related to the enforcement of environment law and to the remedies to the violation of environmental law. The concept of access to justice is often linked to the two issues discussed above, namely the access to environmental information and public participation in environmental matters. The rationale behind access to justice is, among other things, to strengthen the rights of access to environmental information and participation in environmental decision-making, as well as to enhance environmental laws implementation and enforcement.

[48] Many provisions about public participation apply to the implementation of the RTA's environment chapter or environmental side agreement, including cooperative activities, and the operation of the institution(s) established under the RTA or environmental side agreement. These provisions are discussed in sections 5.10 . Altogether, 52 RTAs include environment-related provisions on public participation.

The issue of access to justice was first mentioned at the multilateral level in the 1992 Rio Declaration of the UN Conference on Environment and Development. While Principle 11 of the Rio Declaration calls on governments to enact effective environmental legislation, Principle 10 states that effective access to judicial and administrative proceedings, including redress and remedy, shall be provided. Principle 13 further calls on the development of national law regarding liability and compensation for the victims of pollution and other environmental damage. More recently, Paragraph 99 of the zero draft of the Outcome Document adopted at the 2012 UN Conference on Sustainable Development (Rio+20) also encourages action at the regional, national, subnational and local levels to promote access to information, public participation and access to justice in environmental matters, as appropriate.

A limited number of RTAs, namely 28 agreements, incorporate provisions covering access to justice in environmental matters. The term used to define the access to justice differs across agreements. Some RTAs refer to "procedural guarantees and private access to remedies", while other mention "procedural matters" or "availability of proceedings and procedural standards". With the exceptions of the EAC's Protocol on Environmental and Natural Resources Management and the RTAs between Chile and Colombia, Chinese Taipei and Nicaragua, and India and Japan, the remaining 24 agreement with provisions on access to justice are agreements concluded by the United States (all 11 post-NAFTA RTAs with the exception of the RTA signed with Jordan), Canada (all 8 post-NAFTA RTAs with the exception of the RTA signed with Israel and with the EFTA states) and New Zealand (4 RTAs).

More than 42 specific provisions covering access to procedural guarantees and access to justice have been identified. One of these provisions, included in 19 RTAs call on each party to ensure that judicial, (quasi-judicial) or administrative proceedings, in accordance with its law, are available to sanction or remedy violations of its environmental laws. Another provision, found in 26 RTAs, further specifies that each party shall ensure that the judicial, quasi-judicial, or administrative proceedings available under its law to provide for sanctions or remedies for violations of its environmental laws are equitable and fair or open and transparent. A related provision, included in 20 RTAs, stipulates that such proceedings shall comply with due process of law and be open to the public except where the administration of justice otherwise requires.

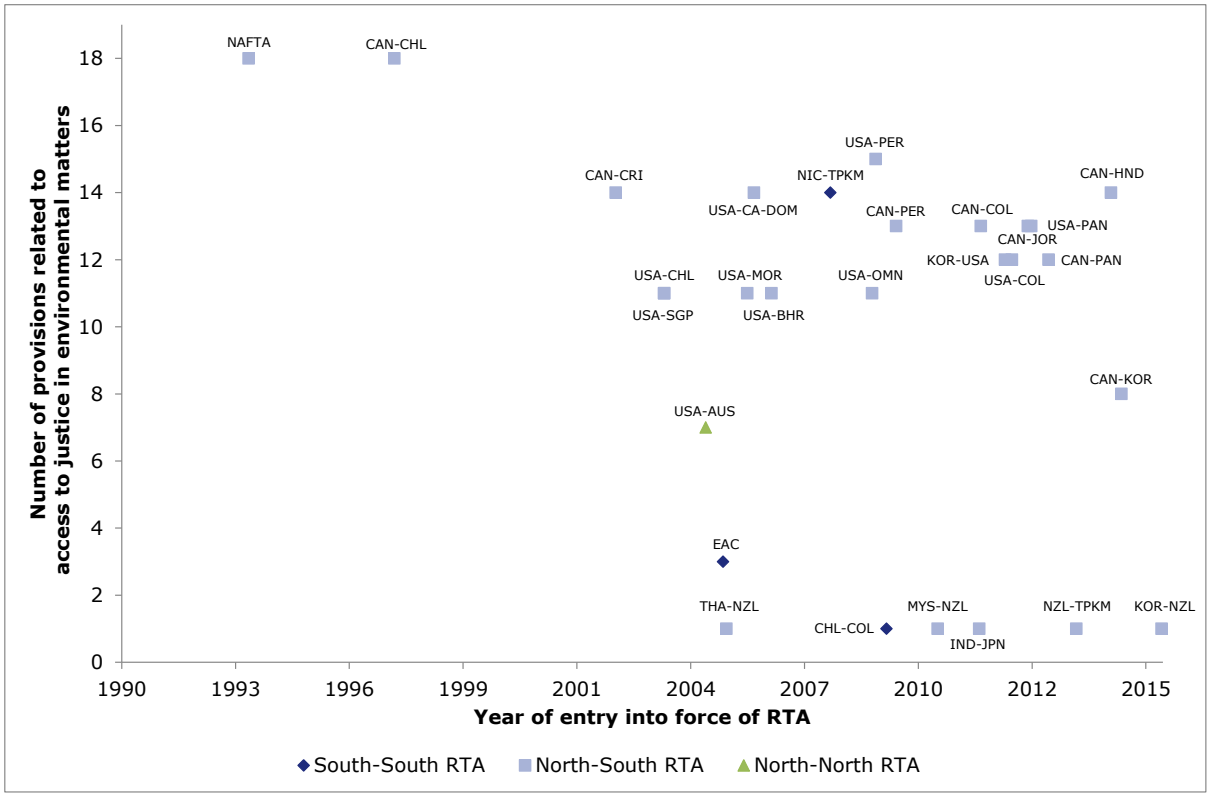
Another related provision, mentioned in 20 RTAs, specifies that each party shall ensure that interested persons residing in or established in its territory may request the party's competent authorities to investigate alleged violations of its environmental laws and to give such request due consideration, in accordance with its law. This provision complements the commitment to ensure that persons with a legally recognized interest under its law in a particular matter have appropriate access to judicial, (quasi-judicial) or administrative proceedings for the enforcement of environmental laws and/or sanctions or remedies for violation of environmental laws. In that context, another provision, found in 13 RTAs further requests the parties to provide persons appropriate and effective rights of access to remedies in accordance with its laws, which may include the right to (i) sue another person for damages under the party's environmental laws; (ii) seek sanctions or remedies, such as monetary penalties or emergency closures; (iii) request the competent authorities to take appropriate action to enforce the party's environmental laws; and (iv) seek injunctions where a person suffers, or may suffer, loss, damage or injury as a conduct by another person that is contrary to the party's environmental law.

Besides private access to remedies, another provision, included in 14 RTAs, commits each party to provide (appropriate and effective) sanctions or remedies for a violation of its environmental laws that (i) take into consideration the nature and gravity of the violation, any economic benefit the violator has derived from the violation, the economic condition of the violator, and other relevant factors; and (ii) may include criminal and civil remedies and sanctions such as compliance agreements, penalties, fines, imprisonment, injunctions, suspension of activities, closure of facilities, the cost of containing or cleaning up pollution, and the requirements to take remedial action or pay for damage to the environment.

The environmental cooperation agreements to which Canada is a party with the United States and Mexico (NAFTA), Chile, Costa Rica, Colombia, Jordan, Panama and Honduras includes a specific provision on private rights stipulating no party may or shall provide for a right of action under its law against the other party on the ground that the other party has acted in a manner inconsistent with the cooperation agreements. The RTAs to which the United States is a party with Australia, and with the Dominican Republic and Central America, and the agreement between Nicaragua and Chinese Taipei further specify for greater certainty, that nothing in the environment chapter shall be construed as calling for the examination under the respective RTA of whether a party's court has appropriately applied that party's environmental laws.

As depicted in Figure 33, the number of different provisions on access to justice in environmental matters varies between RTAs. The NAFTA is the first agreement to incorporate such provisions in its environmental cooperation side agreement. As of today, the NAFTA along with the RTA between Canada and Chile remain the agreements with the highest number of different provisions on access to justice. Both agreements include the exact same provisions in their respective environmental cooperation side agreements. Other RTAs to which the United States and Canada are a party include also a relatively large number of provisions on access to justice. Similarly, the RTA between Nicaragua and Chinese Taipei is the South-South agreement with the highest number of provisions related to procedural guarantees and access to justice in environmental matters.

Figure 33: Evolution of provisions related to the access of justice in environmental matters



Source: Computations based on WTO RTA database.

5.9 Environmental cooperation

In line with the notion of environmental governance, cooperation, technical assistance and capacity building are activities that have been put in place between countries to assist in addressing environmental issues, including facilitating the effective implementation of environmental laws, policies and practices. Principle 24 of the 1972 Stockholm Declaration of the UN Conference on the Human Environment notes that cooperation through multilateral or bilateral arrangements or other appropriate means is essential to effectively control, prevent, reduce and eliminate adverse environmental effects resulting from activities conducted in all spheres, in such a way that due account is taken of the sovereignty and interests of all states.

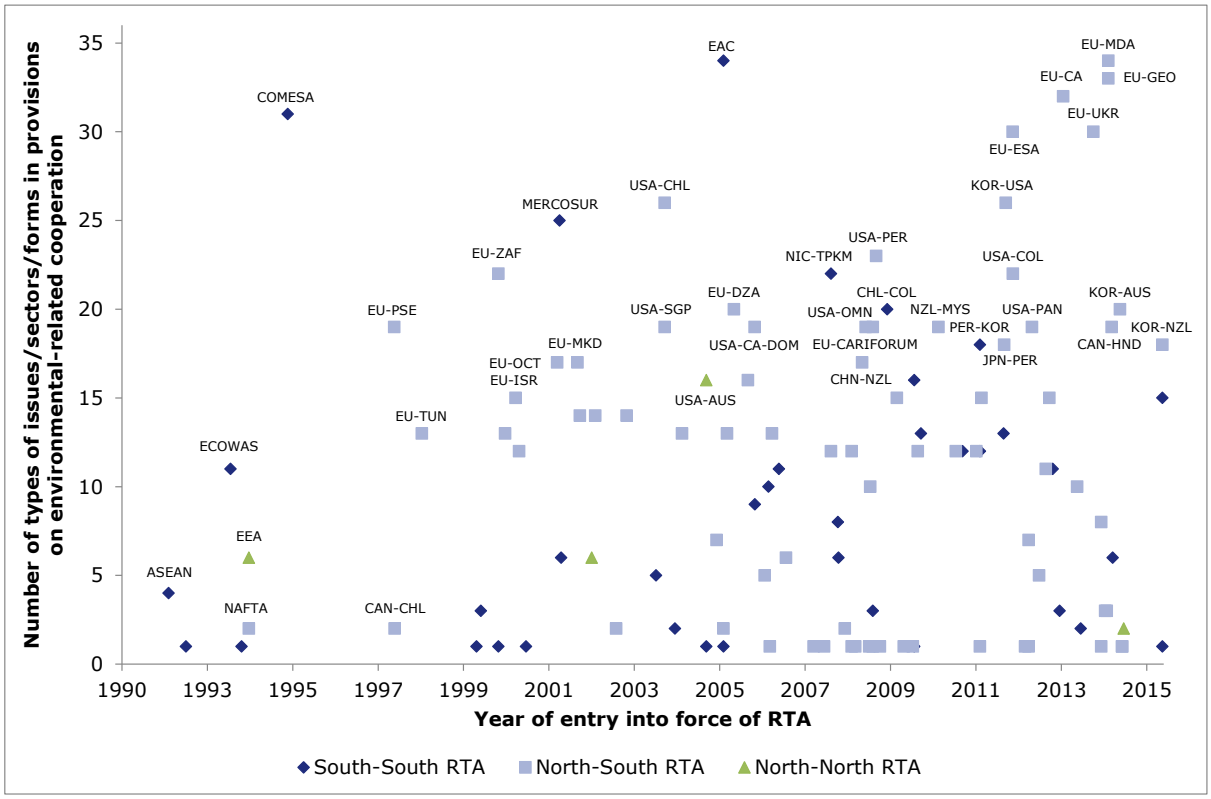
Environment-related cooperative provisions, found in 120 RTAs, are by far the most heterogeneous type of environment-related provisions in terms of language and scope. As highlighted in the review and analysis of the previous types of environment-related provisions, part of the heterogeneity of these cooperation provisions can be explained by their cross-cutting nature and the various issues they covered. Cooperation often constitutes an important means to facilitate the implementation of the RTA's environmental provisions, including by building institutional capacity to improve effective enforcement of environmental laws and maintain high levels of environmental protection. In some cases, provisions on cooperative activities are also incorporated to address specific environmental challenges identified by the parties. In addition, some RTAs only identify potential cooperation areas while other agreements commit the parties to undertake specific cooperative activities.

An additional particular feature of these environment-related cooperation provisions is the fact that they are found in various different chapters of the RTAs. In particular, environment-related cooperation are located mainly in a specific chapter on cooperation that identify environment as one of the areas of cooperation (76 RTAs), but also within the chapters on environment (40 RTAs), intellectual property rights (8 RTAs), sanitary and phytosanitary measures (5 RTAs), trade in services (5 RTAs), technical barriers to trade (3 RTA) and investment (1 RTA). Environment-related cooperative provisions are also included in a number of side agreements, namely 22 environmental cooperation agreements, five memoranda and protocols, five joint statements, one side letter and one supplement. As will be discussed in greater details in section 5.10 , RTAs and side documents including more detailed provisions on cooperation often establish an institutional arrangement to guide current and future cooperation activities.

While provisions identifying the environment as a field of cooperation, often as part of a broader cooperation strategy put forth by the parties, are included in 61 RTAs, other provisions referring to specific environment-related cooperative activities are found in 81 RTAs. Overall, these environment-related cooperation provisions can be broadly grouped, in a non-mutually exclusive way, into cooperation on (i) specific environmental issues and/or (ii) sectors. In addition, a number of these provisions specify (iii) the forms of cooperative activities.

As confirmed by Figure 34, co-operation provisions covering a relatively large number of specific environmental issues, sectors and cooperation forms are usually included in RTAs between developed and developing countries, such as the RTAs negotiated by the EU with the Republic of Moldova, Georgia, Central America, the Eastern and Southern African States and Ukraine. Similarly, the agreements to which the United States is party with Chile, the Republic of Korea, Peru, and Colombia also identify in their respective environmental cooperation agreements a relatively large number of environment-related cooperation activities. Five RTAs negotiated among developing countries feature also a high number of cooperation provisions, namely the EAC's Protocol on Environment and Natural Resources Management, COMESA, the Framework Agreement on Environment of MERCOSUR, and the RTAs between Nicaragua and Chinese Taipei, and Chile and Colombia.

Figure 34: Evolution of provisions on environment-related cooperation

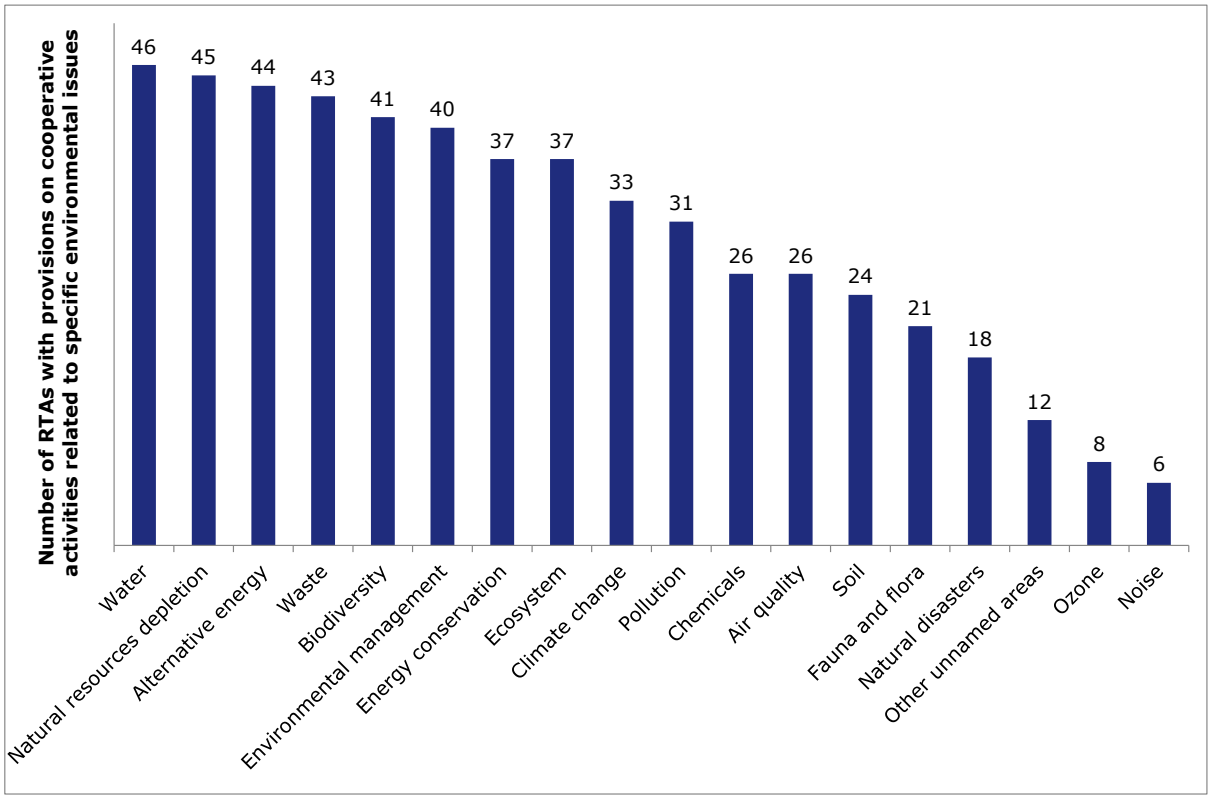


Source: Computations based on WTO RTA database.

5.9.1 Environment-related cooperation on specific issues

Provisions listing specific environmental areas and issues of cooperation, found in 81 RTAs, often serve to support the environmental goals and objectives of the RTA's environment-related provisions and complement the commitments on environment laws. Most of these issues are, by definition, specific to the parties to the RTA, and therefore particularly heterogeneous. As highlighted in Figure 35, water-related issues, including water management, salination and pollution, have been identified as a priority in 46 RTAs. Other specific issues include waste management, natural resources depletion and protection of the ecosystem, such as marine and coastal resources, and promotion of alternative energy and conservation of energy. 12 agreements further foresee future cooperative activities in other unspecified issues.

Figure 35: Provisions on cooperative activities on specific environmental issues



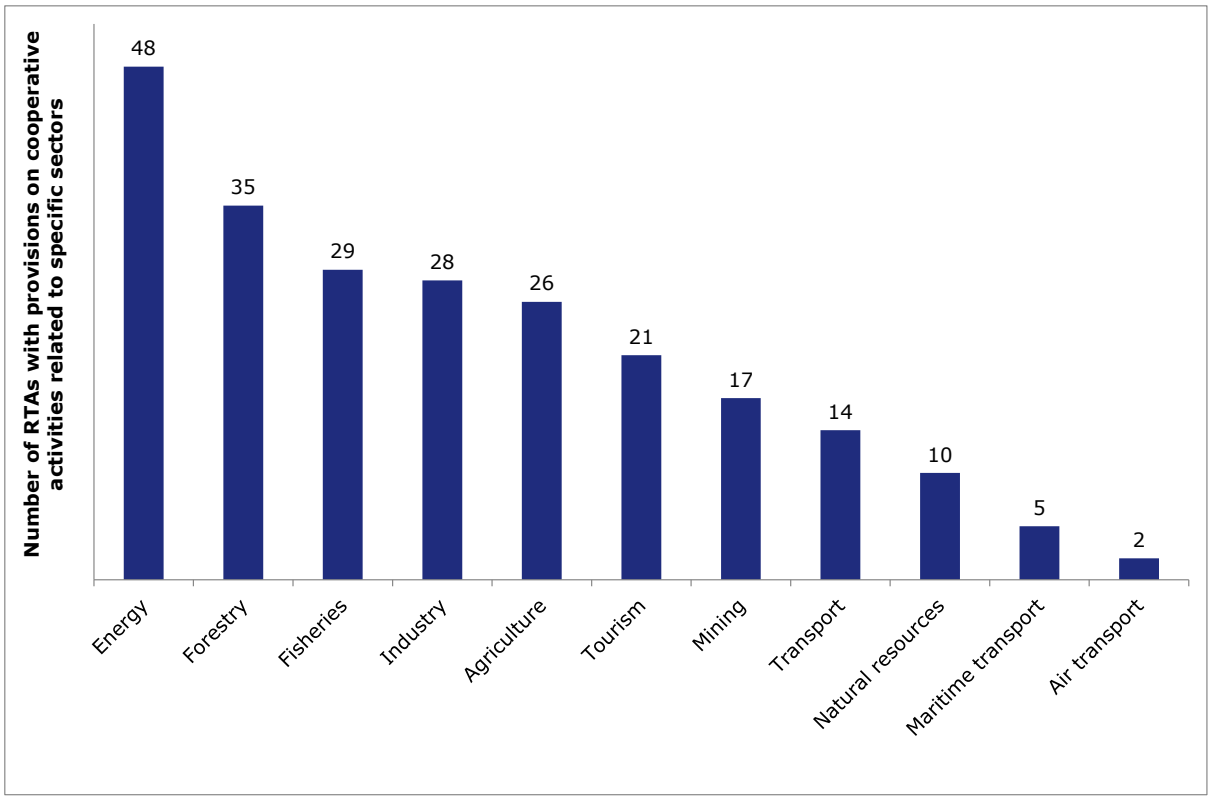
Source: Computations based on WTO RTA database.

5.9.2 Environment-related cooperation on specific sectors

Environmental cooperation in specific sectors is another common approach adopted by 66 RTAs. For instance, eight RTAs to which the EU is a party with the Palestinian Authority, Israel, Mexico, Jordan, Egypt and the agreements negotiated by the EFTA states with Tunisia, the Southern African Customs Union and Central America explicitly recognize the cross-cutting nature of environmental protection and request the parties to take environmental conservation into account in the implementation of technical assistance in various sectors.

As shown in Figure 36, the most commonly covered sectors are energy, forestry, industry, agriculture, fisheries, tourism, mining, and transport. In many RTAs, cooperative activities simultaneously focus on a specific sector and address several issues, including specific environmental ones. This is the case for instance of cooperation provisions in the forestry sector that aimed at promoting sustainable forestry management but also fighting illegal logging activities, addressing deforestation and bush encroachment and promoting afforestation.

Figure 36: Provisions on cooperative activities on specific sectors



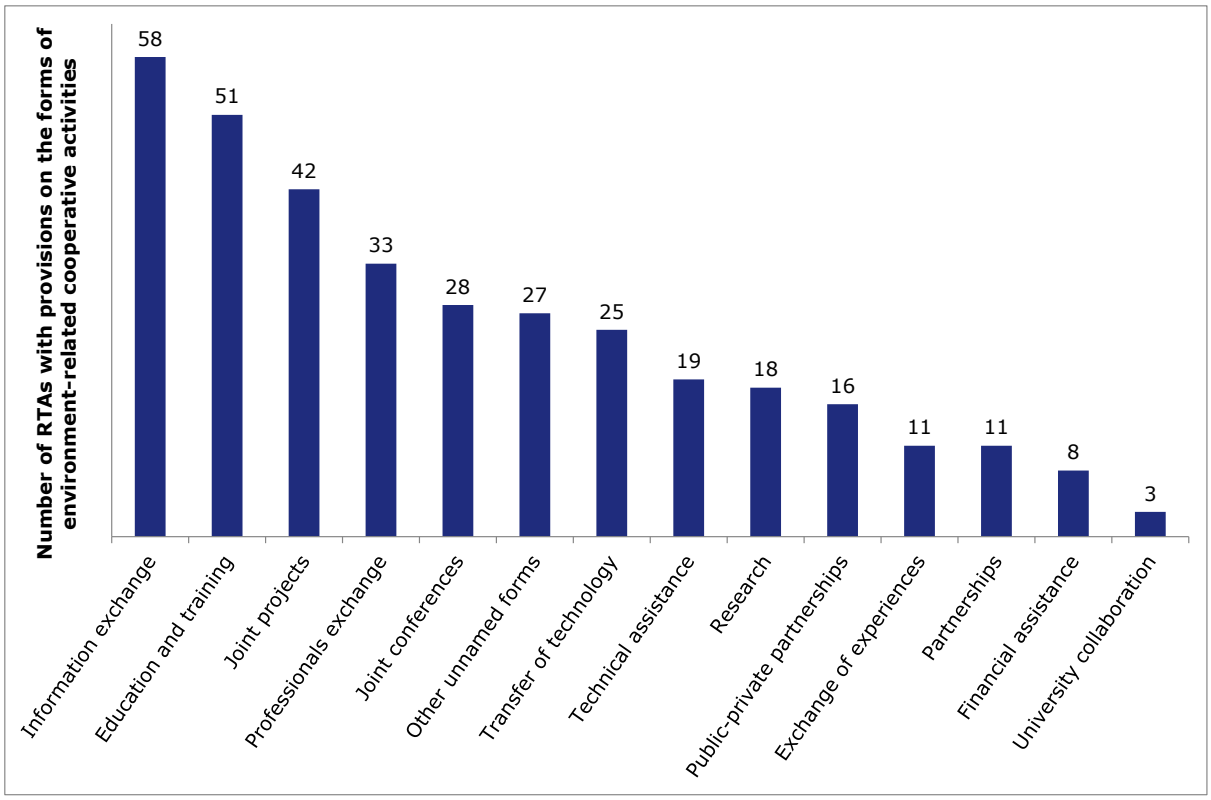
Source: Computations based on WTO RTA database.

5.9.3 Forms of environment-related cooperation

As highlighted in Figure 37, provisions included in 75 RTAs identify more than 14 different forms of environment-related cooperative activities ranging from information exchange, training activities and exchange of professionals to partnerships, joint projects and conferences. A number of these RTAs also specify transfer of technology as a possible topic and form of cooperation.

As explained earlier, the principle of public participation is a cross-cutting issue that also applies to the context of cooperation. 26 RTAs including provisions on public participation in environment-related cooperative activities, ranging from the possibility to involve the public to commitment to provide public participation opportunities, and solicit and take into account the public's views. One of the most common forms of provisions on public participation related to cooperative activities mentions the possibility for the parties to identify and develop or undertake cooperative activities with the involvement of the public and interested stakeholders deem appropriate. Two side agreements associated with the RTAs negotiated by the United States with Chile and Oman are slightly more specific and states that the institution established under the side agreement should promote the development of opportunities for public participation in cooperative projects. Other provisions go beyond the possibility or recommendation and set forth the parties' intention to make efforts to create opportunities to engage with the public. Other provisions go even further and require the parties to seek appropriate opportunities for the public to participate in developing and undertaking cooperative activities. This obligation to seek opportunities also applies to the institution established under the environmental side agreement associated with some RTAs.

Figure 37: Provisions on the forms of environment-related cooperative activities



Source: Computations based on WTO RTA database.

5.9.4 Duty-free/facilitated entry of equipment and personnel of environmental projects

In addition to specifying the forms of environment-related cooperative activities, the environmental cooperation agreement, memorandum of intent or memorandum of understanding associated with eight RTAs negotiated by the United States request each party to facilitate, subject to its laws and regulations, the entry to its territory of equipment and personnel involved in the environmental cooperative activities. Five of these RTAs and the agreement between Nicaragua and Chinese Taipei further request the parties to facilitate, in accordance with their laws and regulations, duty-free entry for materials and equipment provided pursuant to cooperative activities. Three of these RTAs negotiated by the United States further clarify that if those commodities or services are not in fact exempted from value added tax (VAT) or customs duties, the amount of VAT and customs duties paid shall be reimbursed, following the procedures established in the party's law.

5.9.5 Cooperation subject to available financial resources

Finally, 26 RTAs confirm that any environment-related cooperative activities are subject to funds and/or human resources availability. In that context, the RTA between China and Switzerland stipulates that the necessary resources for the implementation of environmental cooperation shall be made available by the competent institutions and organisations as well as by the private sector of both parties, according to terms and conditions agreed on a project-by-project basis and taking into account the different levels of social and economic development of the parties.

5.10 Institutional arrangements

A number of RTAs with a comprehensive chapter on cooperation or the environment and/or an environmental side agreement, namely 69 agreements, have also established specific mechanisms, including body or bodies in some cases, to discuss and oversee the implementation of some of the environment-related commitments laid down in the agreement(s). The nature, structure, and functions of these institutional arrangements vary greatly and depend on the type of trade agreement as well as on the categories of provisions included in the RTA's environment chapter and/or side agreement.

5.10.1 Institutional procedures

Figure 38 provides an overview of the different type of institutional arrangements established under RTAs and side agreements. More than seven different names have been assigned to define the different institutions established under the RTAs and side agreements: council, commission, (joint) committee, subcommittee, (joint) forum, working group, and board. For simplicity, the term institution is used, unless specified otherwise. Four broad types of institutional arrangements, not necessarily mutually exclusive, can be distinguished:[49] (i) RTA's institutional body; (ii) environmental institutional body; (iii) national contact point; and (iv) advisory committee.

5.10.1.1 RTA's institution

The first type of arrangement sets up an institution in charge of overviewing the implementation of the commitments agreed under the agreement. In 26 RTAs incorporating an environment chapter or a cooperation chapter with environment-related provisions, the overview mechanism is provided by the RTA's institution. In the RTAs to which the United States is a party with Singapore, Australia, the Kingdom of Bahrain, and Oman, the environment chapter further foresees the possibility to establish, under the environment chapter and upon request of the parties, a specific subcommittee dedicated only to overview the environment chapter. Similarly, the RTA between Turkey and Chile stipulates that the joint committee established under the RTA may decide to establish sub-committees or working groups under the chapter on cooperation, which includes different environment-related provisions.

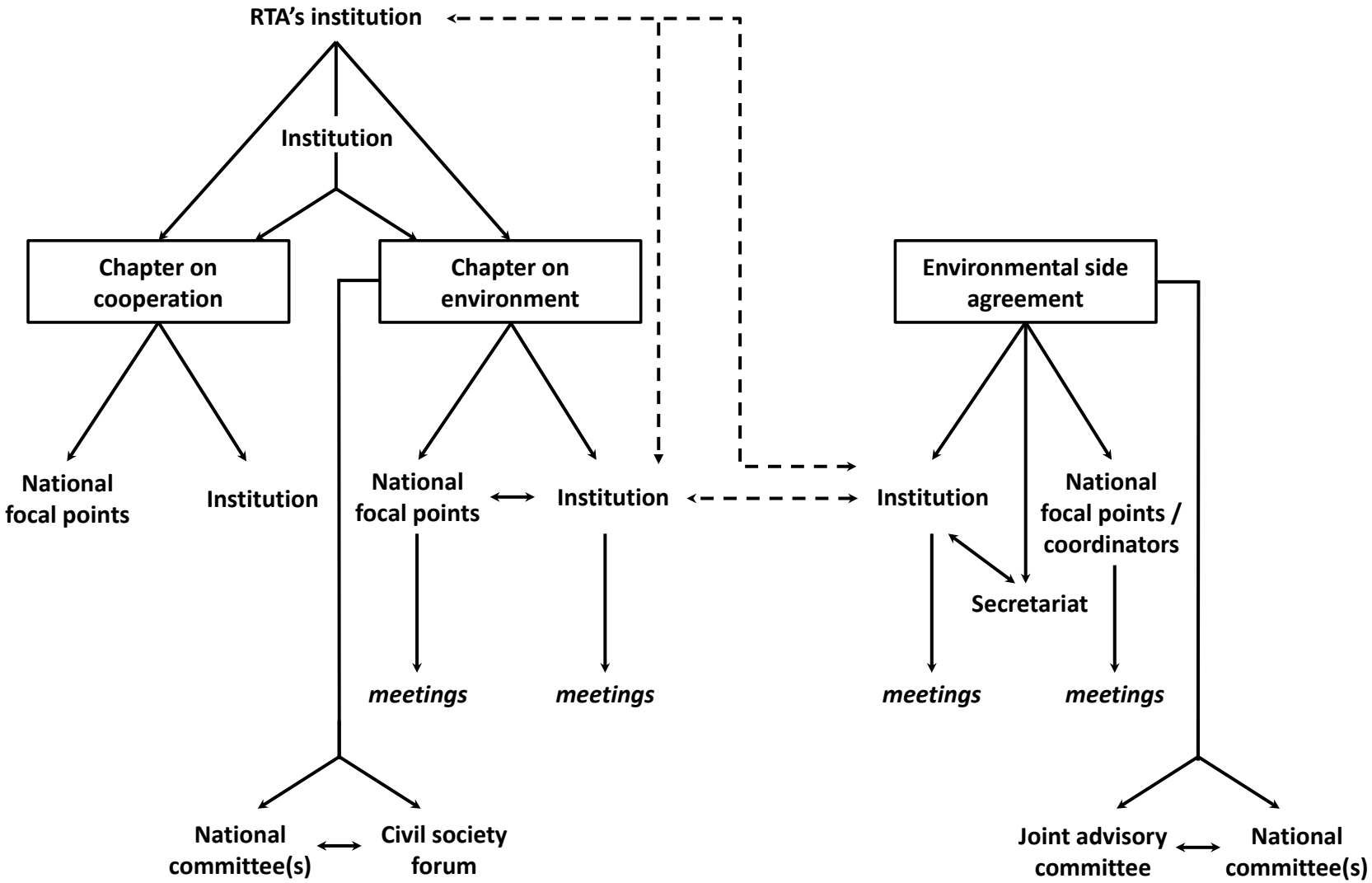
5.10.1.2 Environmental institution

The second type of arrangement involves the establishment of an institution dedicated specifically to overview the implementation of the RTA's environment chapter in addition to RTA's institution. Provisions establishing such environmental institution are found in the environment chapter of 16 RTAs, including the RTAs between the United States and Panama and between the EU, Colombia and Peru. The RTA between the Dominican Republic, Central America and the United States is the only notified agreement to further establish a secretariat along with the environmental affairs council established under the environment chapter. A provision is often included to specify the composition of the institutional bodies, such as the number of officials and their governmental level (e.g. top-level officials).

Institutions are also established under 21 environmental side agreements associated with RTAs to develop, implement and overview cooperative activities. In the NAFTA's agreement on environmental cooperation, a secretariat is also established to provide technical, administrative and operational support to the council. Rather than establishing a general secretariat, the agreement on environmental cooperation between Canada and Chile requires each party to establish a national secretariat. Both agreements further provide each party with the possibility to convene a governmental committee to advice on the implementation and further elaboration of the cooperation agreement. In some cases, the institution established under the environmental side-agreement is mandated to collaborate with the institution(s) established under the RTA.

[49] Technically speaking, a fifth type of institutional arrangement consists in a specific body established under the RTA's cooperation chapter, which includes in some cases specific environment-related articles or sections.

Figure 38 Overview of environmental institutional arrangements



5.10.1.3 National contact point/coordinator

The third type of institutional arrangements consists of establishing a national contact point or national coordinator to facilitate communication between the parties regarding the implementation of the environment chapter (26 RTAs) or the environmental side agreements (23 RTAs). In some cases, the national contact point is also in charge of undertaking administrative activities associated with the environmental institution or establishing and coordinating the environmental cooperation programme. While all agreements with provisions of a national contact point require its identification, the RTA between Australia and Chile is the only notified agreement to stipulate that the parties may designate national contact points to facilitate activities on environment cooperation.

5.10.1.4 Advisory committees

The fourth type of institutional arrangements relates to the promotion of public participation through advisory committees. As explained above, public participation in environmental matters is often viewed as a key pillar of environmental governance. In this context, several provisions, included in 7 RTAs, mention the possibility for each party to convene, or consult with an existing, national advisory committee comprising representatives of both its environmental and business organizations and other members of its public, to advice on the implementation of the RTA's environment chapter or environmental side agreement. Another related provision, found in the environmental cooperation agreements negotiated by the United States with Peru and the Republic of Korea, is more specific by stipulating that each party shall consider the establishment of a national advisory committee comprised of, among others, representatives from nongovernmental organizations, academia, industry, indigenous groups, subnational governments and private citizens to advise the representative of the institution established under the cooperation agreement regarding its work program.

The most common provision regarding national advisory committees, found in 10 RTAs, such as the agreement between Nicaragua and Chinese Taipei, requires each party to convene a new, or consult an existing, national consultative or advisory committee, comprising persons of the party with relevant experience, including experience in business and environmental matters. The RTA between the EU and Central America incorporates the same provision requiring each party to convene new or consult existing advisory groups, but further requires these advisory groups to comprise independent representative organisations, in a balanced representation of economic, social and environmental stakeholders including, among others, employers and workers organisations, business associations, non-governmental organisations and local public authorities. The institutions established under the environment chapter of the RTAs negotiated by the United States with Peru, the Republic of Korea and Colombia are also required, each time a meeting is held, to consider input received from each party’s consultative or advisory committee concerning the implementation of the environment chapter.

Besides domestic advisory committees, another provision specific to the environmental cooperation agreements associated with the NAFTA and the RTA between Canada and Chile establishes a joint public advisory committee. Under both agreements, the joint public advisory committee is defined as an independent volunteer body providing advice and public input to the institution establish under the environmental agreement on any matter within the scope of the environmental agreement. The RTA between the EU and CARIFORUM States establishes also a consultative committee to promote dialogue and cooperation between representatives of organisations of civil society, including the academic community, and social and economic partners. Similarly, the RTAs negotiated by the EU with the Republic of Korea, Central America, the Republic of Moldova, Ukraine and Georgia establishes a (joint) civil society dialogue forum to conduct a dialogue on sustainable development aspects of the trade relations between the parties.

5.10.1.5 Institution's meeting and decision procedures

Provisions regarding institutional arrangements often establish meeting procedures either of the parties or the institutional bodies created in the RTA or side agreement. The meetings schedule differs significantly across the 34 RTAs or side agreements, from annual meetings (included in 4 RTAs) or meetings at least once a year (5 RTAs) to biannual meetings (6 RTAs) to meetings held on a regular basis (4 RTAs), as necessary (13 RTAs) or as mutually agreed (14 RTAs). In addition, many RTAs foresee a first meeting within the first year after the respective agreement enters into force. The environmental cooperation agreements between China and Chile and the RTA between Nicaragua and Chinese Taipei are the only notified agreements to specifically provide for meetings of the national focal points in order to review and promote the cooperative activities. A limited number of agreements also specify explicitly the institutions' rules to adopt decisions and recommendation, such as consensus (5 RTAs), mutual agreement (5 RTAs), or simple majority (1 RTA). Other institutional procedures specified in RTAs and side agreements include mainly mechanism to enhance transparency and public participation in the activities and decisions of the institutions. For instance, a provision, included in 12 agreements, requires each party or the institution established under the RTA's environment chapter to promptly make available to the other parties, including their public, all communications received on matters related to the environment chapter. A similar provision is included in 12 environmental side agreement. In a limited number of cases, this obligation of publication can be subject to the decision of the party (having demonstrated a legal basis) or the RTA's institution.

Provisions regarding public participation in the context of the actual operation of the institution(s) established under the RTA or environmental side agreement are included in 20 agreements and range from the possibility for the institution to consult with stakeholders to the intention or requirement to consult with the public and consider its views regarding the institution's work and meeting's agenda. For instance, the RTA between Nicaragua and Chinese Taipei, and the RTAs negotiated by the United States with the Dominican Republic and Central America, and with Panama, require the institution established under the RTA's environment chapter to ensure a process for promoting public participation in its work, in order to share innovative approaches for addressing environmental issues of interest to the public, including by engaging with the public on those issues. In other cases, the parties are required to ensure procedures exist for dialogue with their public concerning the identification of matters to discuss at the meetings of the institution established under the RTA's environment chapter. Another provision encountered in several RTAs requires the parties to hold a public meeting in the course of the sessions of the RTA's institution to discuss on matters related to the RTA's environment chapter or environmental side agreement.[50]

5.10.1.6 Institutions' roles and functions

Similar to the institutional procedures, the role and functions of the institutions established under RTAs and side agreements differ significantly across agreements. Most institutional bodies, including in some cases national contact points, are in charge of monitoring and reviewing the implementation of the agreement, including the objectives' agreement. Some of these institutions are also tasked to oversee and evaluate the cooperative activities undertaken by the parties, as well as to review the operation and outcome of the agreement with a view, in many cases, to improving its operation and effectiveness.

[50] Several provisions on public participation in the implementation of the RTA's environment chapter or environmental side agreement apply directly to the parties. For instance, a number of RTAs and side agreements mention the possibility for the parties to provide an opportunity for their public to submit views or advice, or more directly, to consult with their public. Other related provisions recommend each party or call on each party to endeavour to solicit and take fully account and/or review and respond to the views of the public with respect to the environmental side agreement's plan of action. Several other provisions require the parties to provide an opportunity for public participation, or more specifically, to establish, develop or maintain procedures or mechanisms for dialogue with the public concerning the implementation of the RTA's environment chapter. Another common provision refers to the obligation for each party to respond favourably or accommodate requests by the public to exchange views or discuss the party's implementation of the RTA's environment chapter, and in some cases to provide for the receipt and consideration of public communications on matters related to the RTA's environment chapter.

In some RTAs, the institutions serve also as a forum of discussion on matters of mutual interest, including the implementation of the environment chapter or side agreement. In some agreements, the institutions are further expected to contribute to the prevention or resolution of disputes regarding the commitments established under the RTA's environment chapter or side agreement. Other specific functions include the preparation of reports on specific environment-related issues as well as the realization of activities and the possibility to make recommendations on specific environment-related issues and further development of the agreement.

One particular function instituted in only four RTAs consists in adopting and promoting environment-related measures.[51] The European Council under the EU Treaty shall under specific conditions adopt measures affecting quantitative management of water resources and the choice between different energy sources, among others issues. The Economic and Monetary Community of Central Africa stipulates that the Council of Minister sets through recommendations the orientations parties are invited to implement in order to preserve, protect, restore and improve the quality of the environment. Similarly, the Economic Agreement between the GCC explains that relevant legislation and resolutions to protect the environment will be adopted within the GCC framework. Finally, the council for trade and economic development established under the trade agreement between the European Union and the Overseas Countries and Territories is responsible, among other things, to promote measures for the development of energy and natural resources on a sustainable basis, and to promote and develop policies for the protection and preservation of the environment and sustainable development.

As confirmed by Figure 39, the RTAs to which the United States is a party tend to include the highest number of provisions regarding institutional arrangements. The environmental cooperation agreement associated with the NAFTA remains the agreement with the highest number of environment-related institutional arrangements provisions, with the establishment of a commission on environmental cooperation comprising a council (governing body), a secretariat (executive body located in Montreal) and a joint public advisory committee (cooperative mechanism with civil society).[52] The functions and procedures of the council and secretariat are specified in great details, including extensive collaboration with the free trade commission established under the NAFTA. In addition to these three bodies, the agreement provides for the possibility to convene national advisory committees as well as governmental committees to advise the parties on the implementation and further elaboration of the agreement. The agreement on environmental cooperation between Canada and Chile provides relatively similar institutional procedures with the exception of two national secretariats rather than a stand-alone formal secretariat.

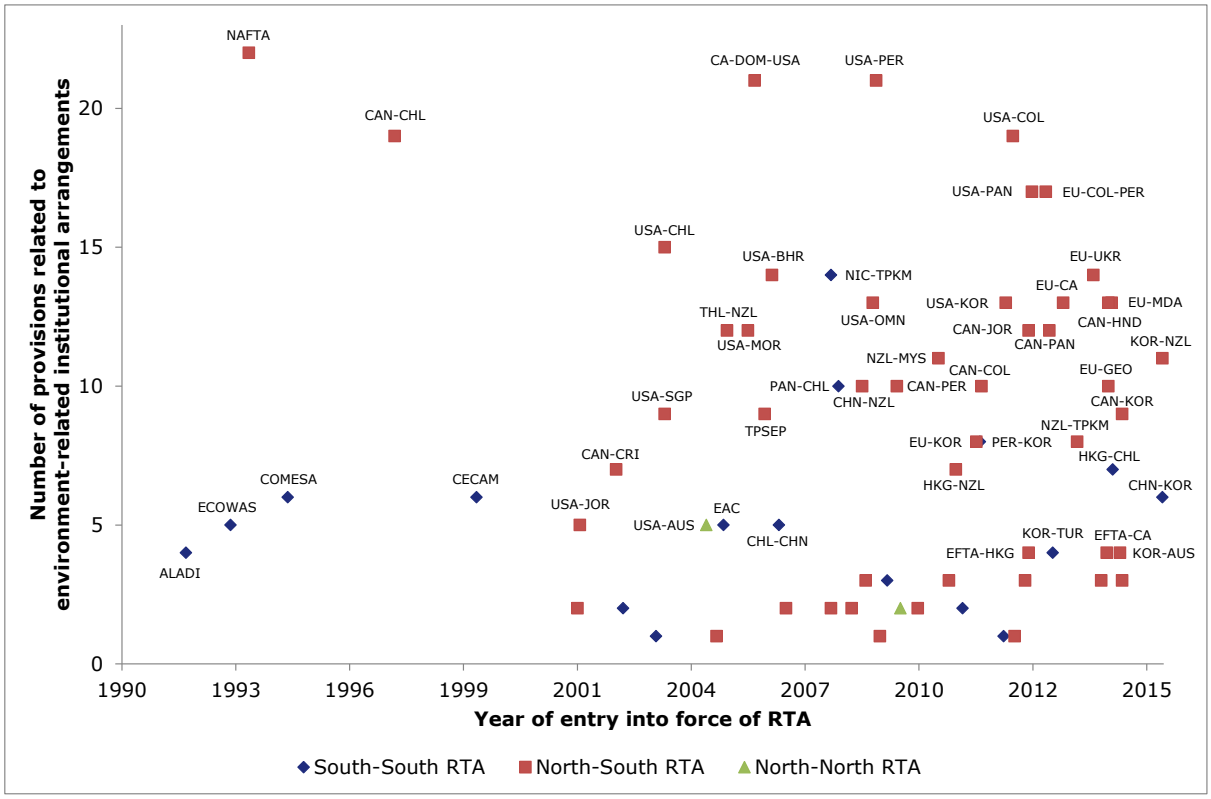
Other agreements with a relatively high number of institutional provisions include the RTAs to which the United States is a party with Peru and Colombia. Under both trade agreements, an environmental affairs council and a contact point are established to oversee and implement the chapter on environment. In addition, under their respective associated environmental cooperation agreements, an environmental cooperation commission is also established and national coordinators are identified. The trade agreement between the United States and Peru further establishes, in the Annex on Forest Sector Governance, a sub-committee on forest sector governance to facilitate cooperation and undertake regular consultations on matters related to the timber sector. The RTA between the Dominican Republic, Central America and the United States also includes comprehensive institutional arrangements with a commission, a formal secretariat (located in Guatemala), and national focal points established under the trade agreement, as well as a commission and national coordinators established under the side environmental cooperation agreement.

[51] See section 5.3.8 on harmonization of environmental laws for more details.

[52] Although not mentioned in the North American Agreement on Environmental Cooperation, a border environment cooperation commission has been established to identify projects to be financed by the North American Development Bank and aimed at addressing infrastructure problems related to the need in water supply, wastewater treatment and solid waste on the US-Mexico border.

The remaining RTAs with comprehensive institutional arrangements involve mostly the United States, the European Union, Canada and New Zealand. For instance, under the chapter on sustainable development of the trade agreement between the EU, Colombia and Peru, a subcommittee on trade and sustainable development is established with specific and detailed functions. National contact points are also designated to facilitate communication between the parties and the possibility to create and convene domestic environment or sustainable development committees or groups is foreseen. The trade agreement between Nicaragua and Chinese Taipei is the agreement negotiated among developing countries with the highest number of environment-related institutional arrangements, including meetings of the environmental affairs committee and national contact points.

Figure 39: Evolution of provisions related to environmental institutional arrangements



Source: Computations based on WTO RTA database.

5.10.2 RTA's environmental impacts review

While a limited number of countries[53], including Canada, the European Union and the United States, are committed by law to undertake *ex ante* environmental impact assessment of RTAs being negotiated, 22 RTAs incorporate provisions related to the *ex post* review of the impact of the agreement on the environment or sustainable development.[54] Just like the provisions related to the environmental impact assessment of projects and activities discussed in section 5.3.12 , the language and level of commitments regarding the RTA's environmental impact review differ across agreements. The RTA between the EU and the CARIFORUM States recognises the importance of monitoring and assessing the impact of implementation of the RTA on sustainable development through the parties' respective participative processes and institutions, as well as those set up under the RTA.

[53] See OECD (2007), (2010), (2013a) for a discussion on *ex ante* and *ex post* impact assessment of RTAs.

[54] In addition to these provisions on the RTA's environmental impact review, 20 agreements include provisions foreseeing or establishing commitments to review the operation of the environment chapter and/or environmental cooperation agreements with respect to the objectives established under the environment chapter and/or cooperation agreements, often with a view to improving its operation and effectiveness.

The remaining provisions establishing commitments to review the RTA's environmental impacts tend to be more specific. The agreements to which the United States is a party with Jordan, Singapore and Australia require the joint committee established under their respective RTA to consider, at its first meeting, the review performed by each party of the RTA's environmental effect. The trade agreement between the EFTA states and Ukraine also requires the parties to perform a review of the RTA relating to sustainable development in the joint committee established under the agreement within three years after its entry into force. Worded differently, the RTAs to which the EU is a party with Colombia and Peru, and Central America stipulate that the parties commit to review, monitor and assess the environmental or sustainability impact of the agreement's implementation as they each deem appropriate, through its respective domestic and participative processes. The trade agreement between the EU and the Republic of Korea includes a similar provision without mentioning the terms "as each party deems appropriate" but referencing to the participative processes and institutions set up under the RTA. The provision on environmental review in the RTA between Peru and the Republic of Korea is based on a different language and calls on the parties to strive to review, monitor and assess the positive and negative environmental impacts of the agreement's implementation. Similarly, both environmental cooperation agreements associated with the NAFTA and the RTA between Canada and Chile specify that the council established under the respective side agreement is expected to cooperate with the free trade commissions established under the respective RTA by considering, on an ongoing basis, the environmental effects of the respective trade agreement. The RTA between the EFTA states and Hong Kong (China) foresees also the possibility, upon request of one of the parties, of a sustainability review of the trade agreement in light of international developments in sustainable development.

The other provisions regarding RTA's environmental impact review, found in 17 RTAs, are mainly aimed at cooperating through the exchange of information or experience. For instance, the RTAs to which the EU is a party with the Republic of Korea, Ukraine, the Republic of Moldova and Georgia list as an area of cooperation the exchange of views on the positive and negative impacts of this RTA on sustainable development and ways to enhance, prevent or mitigate them, taking into account sustainability impact assessments carried out by the parties. Similarly, 11 agreements to which the United States is a party specify that the parties shall, as they deem appropriate, share information on their experiences in assessing and taking into account positive or negative environmental effects of trade agreements and policies. The RTA between China and the Republic of Korea incorporate a relatively similar provision stipulating that the parties, as appropriate, share information with the other party on techniques and methods in reviewing the environmental impacts of the RTA.

5.10.3 Submission on enforcement issues

As discussed previously, a number of RTAs include provisions related to access to justice in environmental matters. Several RTAs also incorporate complementary provisions aimed at enhancing access to justice through the institutional procedures established under the RTA. Many of the RTAs negotiated by the United States and Canada, namely 12 agreements, provide individuals (and in some cases also organizations) with the possibility to submit questions or file complaints alleging that one of the parties of the RTA is failing to effectively enforce its environmental laws and regulations. These questions or complaints are sent to the institutional body created to monitor the implementation of the RTA's environment chapter or the environmental cooperation agreement associated with the RTA.

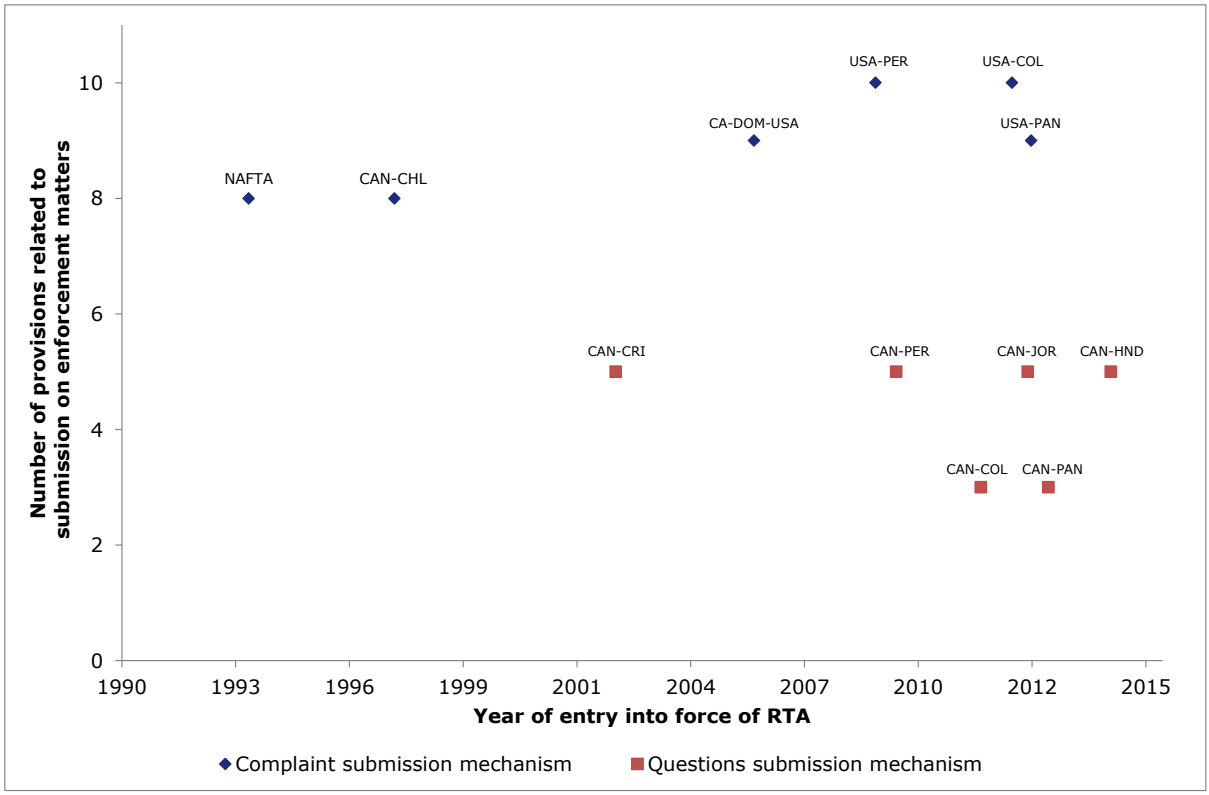
Six agreements, namely the RTAs to which the United States is a party with Canada and Mexico (NAFTA), the Dominican Republic and Central America, Peru, Colombia, and Panama and the RTA between Canada and Chile, include provisions establishing a mechanism for the submission of complaints on enforcement issues. Similar to other types of environment-related provisions, the language and scope of provisions related to the submission on enforcement issues of environmental laws differ across agreements, with 12 different provisions identified. One important feature of the mechanism of submissions on enforcement matters is its scope, in particular the identity of those able to file such submission. While the NAFTA and the RTA between Canada and Chile allow for citizens and organisations to file such complainants, the submission on enforcement matters is limited to individual in the other four US RTAs. In all six RTAs, the submission is subject to a number of conditions in order to be considered. In particular, submissions shall be filed (i) by a person of a party; (ii) in the appropriate language; (iii) identifying clearly the complainant;

(iv) with sufficient information to allow the review, including identification of the environmental laws of which the failure to enforce is asserted; (v) with the intention to promote enforcement rather than harass industry; and (vi) with an indication that the enforcement matter has been communicated in writing to the relevant party's authorities and indicates its response, if any.

The complaints are submitted to an institutional body - secretariat or committee, which is in charge of examining and determining whether the submission merits requesting a response from the affected country where the alleged non-enforcement of the environmental law is taking place. In case of a positive decision, the complaint is submitted to the appropriate authority in the affected country, which has then 30 or 45 days (up to 60 days in exceptional circumstances) to respond to the complaint by indicating whether the matter at issue is pending a judicial or administrative proceeding and, other information considered relevant by the affected country, such as whether the complainant has access to private remedies in connection with the matter

In all six RTAs, the secretariat or committee in charge of reviewing the submissions can notify another institutional body – the council - when it considers that the submission, in light of the responses provided by the party, warrants establishing a factual report. The council can upon vote decide whether the secretariat, or in the case of the RTA between Canada and Chile a commissioned expert in environmental matters, can develop a factual record. In all six RTAs, the provisions related to factual records stipulates that the preparation of the factual record has to be based on any information furnished by the parties and other relevant technical and scientific data, or other public available information, developed by independent experts or the secretariat, and submitted, among others, by interested persons, including non-governmental organizations, and national advisory committees. Once completed, a draft factual record is submitted to the council and open to comments by any party on its accuracy within 45 days. The final factual record, incorporating any appropriate comments, is then submitted to the council which can, upon a vote, make the factual record available to the public within 60 days following its submission.[55]

Figure 40: Evolution of provisions related to submission on enforcement matters



Source: Computations based on WTO RTA database.

[55] See Colyer (2011) for a review of the citizen submission process in various RTAs, including the NAFTA and the RTA between Central America, the Dominican Republic and the United States.

As highlighted in Figure 40, the NAFTA and the RTA between Canada and Chile are the first agreements to establish a submission mechanism in the environmental cooperation agreements accompanying their respective RTAs. The RTAs to which the United States is a party with Central America and the Dominican Republic, Peru, Colombia, and Panama provide also for such mechanisms, whose number of different provisions in the environment chapter are slightly greater. Under these five US agreements, the institutional body, usually referred to as the council, has the possibility to provide, as appropriate, recommendations related to matters addressed in the factual record, including recommendations related to further developing the party's mechanisms for monitoring its environmental enforcement. The RTAs negotiated by the United States with Peru and Colombia further request the council to review, after five years, the implementation of the mechanism of submission on enforcement matters and report the results of its review, and any associated recommendations.

Besides these six RTAs, six other agreements to which Canada is a party include provisions establishing a mechanism limited to the submission of questions on enforcement of environmental laws. Under the environmental cooperation agreement between Canada and Costa Rica, any person or non-governmental organization residing in or established in the territory of one of the parties may submit a written question to a party regarding that party's obligations pursuant to the article to effectively enforce its environmental laws. The other five environmental cooperation agreements negotiated by Canada with Peru, Colombia, Jordan, Panama and Honduras provide with a similar mechanism but broader in scope. Under these five cooperation agreements, any person residing in or established in the territory of one of the parties may submit a written question to the other party, through its national coordinating officer, indicating that the question is being submitted regarding that party's obligations pursuant to its respective cooperation agreement, which include the obligation to effectively enforce environmental law. Some of these six agreements further specify that the party receiving the question has the obligation to acknowledge its receipt. The party receiving the question has further the obligation to provide a response to the question in a timely manner. In some agreements, the party has the possibility to refer in its response to the fact that an issue raised in the question is being or has been addressed in another domestic or international forum. As discussed in section 5.8.1 on transparency, this public accountability mechanism is complemented by a party-to-party information exchange mechanism through which a party may notify and provide to the other party credible information regarding possible violations of, or failures to effectively enforce, its environmental law. The notified party shall take appropriate steps, in accordance with its domestic law, to inquire and to respond to the notifying party.

5.11 Consultations procedures

A key feature of many bilateral, regional and multilateral agreements is the possibility to hold consultations among parties when their views on the agreement's interpretation, implementation and enforcement (by the other party) differ.

An increasing number of RTAs, namely 64 agreements, provide for consultations procedures to address specific or any environment-related matter arising under the RTA and/or environmental cooperation agreements. Similar to the provisions on dispute settlement procedures, discussed in the next subsection, the nature, scope and extent of environment-related consultations procedures mainly depend on the type of environment-related provisions and whether that environment-related provision is located in the RTA's (i) investment chapter or (ii) environment chapter, or in (iii) the environmental side agreement.

5.11.1 Consultations on environment-related matters under the RTA's investment chapter

As discussed in detail in subsection 5.3 on domestic environment laws, a large number of RTAs recommends or call on the parties not to exempt, eliminate, waive or derogate from domestic environmental measures to encourage investment. 24 of the RTAs incorporating such provisions provide that each party may request consultations with the other party when it considers that the other party has offered such an encouragement. A limited number of RTAs further clarify that if a party requests consultations with the other party, both parties are required to consult with a view to avoiding any such encouragement. The RTA between El Salvador, Honduras and Chinese Taipei

is the only notified agreement to specify that the consultations can be requested through the Committee of Investment and Cross-border Trade in Services established under the RTA's chapter on investment chapter. The RTA between Canada and Colombia is also the only notified agreement to explicitly require the parties to make every attempt to address the matter through consultations and exchange of information.

5.11.2 Consultations on environment-related matters under the RTAs' environment chapter

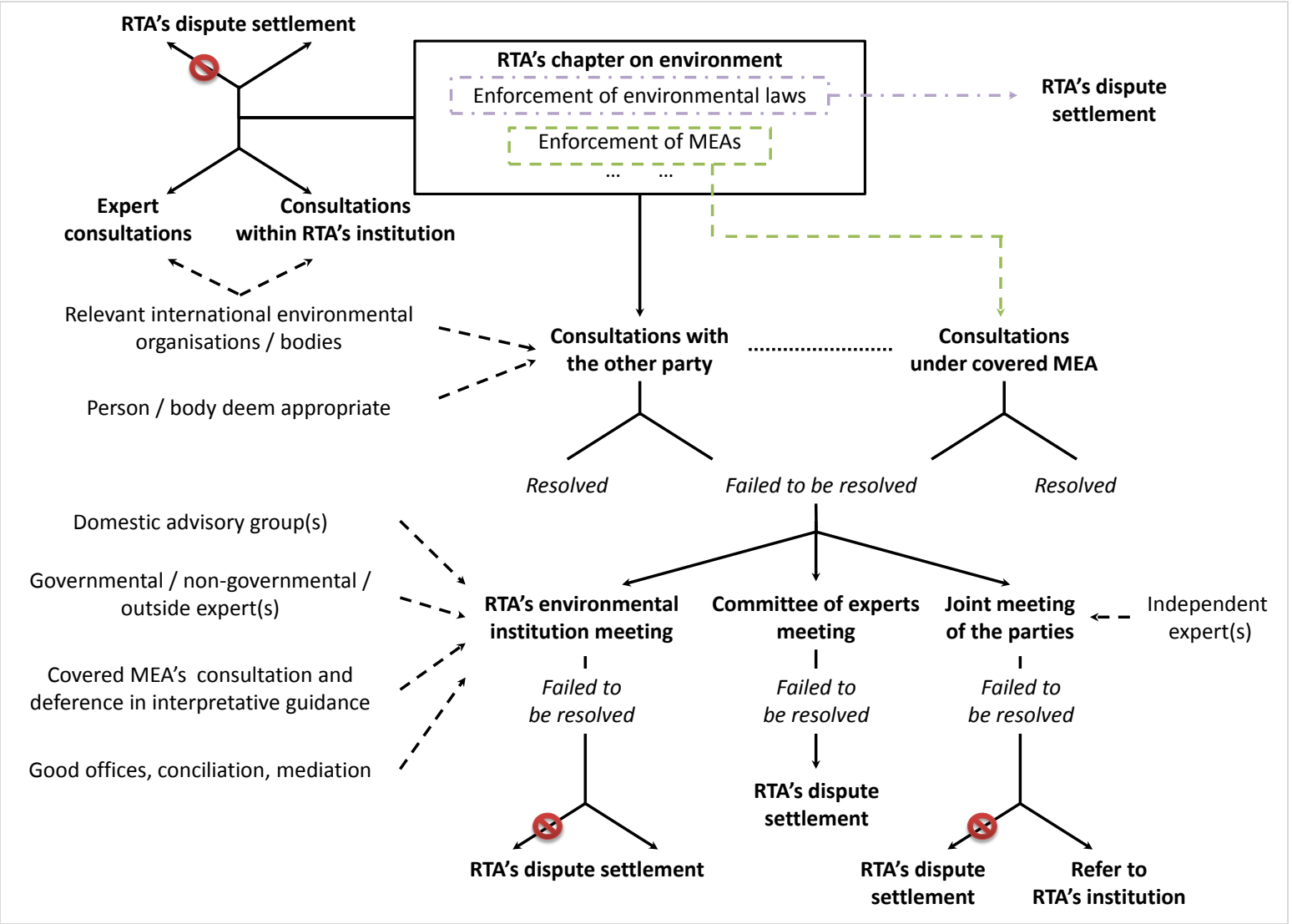
A common feature of 34 RTAs incorporating a chapter on the environment or sustainable development (out of 47 agreements with an environment chapter) is the possibility for each party to request consultations with the other party regarding any issue arising under that chapter. Figure 41 provides an overview of the different structures and procedures associated with the provisions on environmental consultations. The level of details and structure of these provisions vary, and can range from dialogue and consultations among the parties to meetings of the institutional body established under the RTA's environment chapter and/or institutions chapter. Many of these provisions are specific to a single or a couple of RTAs.

The most common provisions related to environmental consultations allows each party to request consultations regarding any issues or matters arising under the RTA's environment chapter. The RTA between the EU and the CARIFORUM States is the only notified agreement to explicitly exclude the article on environment-related cooperation from the scope of environmental consultations. Most of these RTAs specify that the request for environmental consultations has to be delivered (in written) to the party through the national contact point. Another provision, included in the RTAs to which the EU is a party with Central America, the Republic of Moldova and Georgia, further requires the matter to be presented clearly and factually, by identifying the problem at issue and providing a brief summary of the claims under the RTA's chapter on sustainable development. The RTAs negotiated by Chile with Colombia and Hong Kong (China), and the agreement between New Zealand and Chinese Taipei further require the national contact point to identify the office or official responsible for the issue raised in the consultations request and to assist as necessary in facilitating communications between the parties.

Most of these RTAs call on the parties to make every attempt and efforts to arrive at a mutually satisfactory resolution of the matter, including through dialogue, consultation, exchange of information and cooperation. Some RTAs establish a time-frame (in days or months) for holding consultations, other refer to prompt or expeditious consultations. Most consultation procedures enable the parties to seek advice, assistance, information or views from any person, organization or body deem appropriate, including MEAs. The RTAs to which the EU is a party with the Republic of Korea, Ukraine, the Republic of Moldova and Georgia further call on the consulting parties to ensure that the resolution of the matters reflects the activities of the relevant MEAs in order to promote cooperation and coherence between the work of the parties and these organisations. The RTA between the EU and Central America includes a similar provision by requiring the consulting parties to take into account the activities of the relevant MEAs. The RTA also recommends giving special attention to the particular problems and interest of developing country parties. As previously highlighted in the discussion on provisions related to MEAs, the RTAs to which the United States is a party with Peru, the Republic of Korea, Colombia, and Panama specify that when the issue involves obligations under a covered MEA, the matter has to be addressed through a procedure under the relevant MEA, unless the procedure could result in unreasonable delay.

For most of these 34 RTAs establishing specific consultations procedures under the environment chapter, these environment-related consultations provide for initial discussions between the parties. If the parties fail to resolve the issue at hand or the matter needs further discussion, the consulting parties have the possibility to require a meeting of the institution established under the RTA's environment chapter in order to resolve the matter. Just like the initial environmental consultations, the RTA's environmental institution has the possibility to consult governmental, non-governmental or outside experts. The RTAs negotiated by the EU with the Republic of Korea, the Republic of Moldova and Georgia mention the possibility for the environmental institution - the committee on trade and sustainable development - to seek the advice of either or both domestic advisory group(s). The 11 US RTAs with environmental consultations provisions further require the environmental institution to have recourse, where appropriate, to such procedures as good offices, conciliation, or mediation.

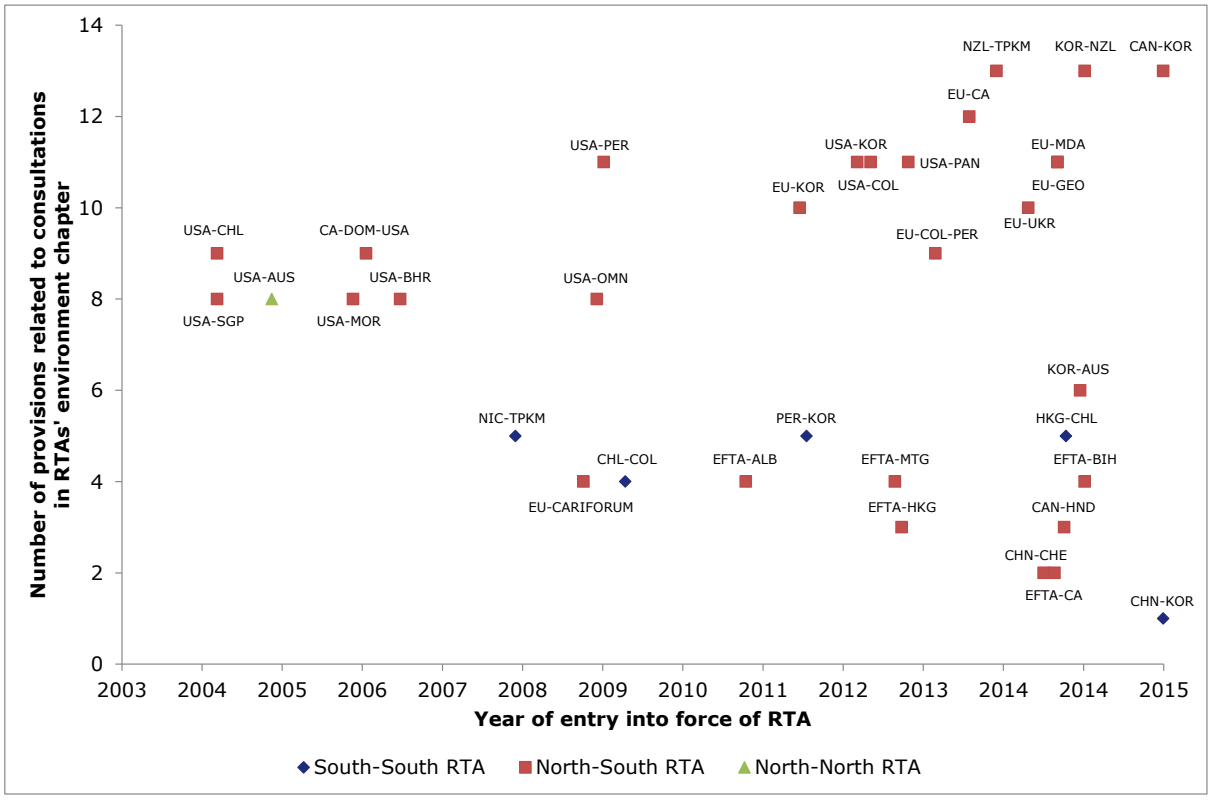
Figure 41: Overview of environmental consultations' structure in RTAs



As discussed in section 5.4.8 , when the issue involves obligations under a covered MEA, the RTAs to which the United States is party with Peru, the Republic of Korea, Colombia, and Panama specify that the RTA's environmental affairs council has to consult fully with any entity authorized to address the issue under the relevant MEA. In addition, the environmental affairs council has to defer to the interpretative guidance on the issue under the relevant MEA to the extent appropriate in light of its nature and status, including whether the party's relevant laws, regulations, and other measures are in accordance with its obligations under the covered MEA. Instead of referring to a meeting of the institution established under the RTA's environment chapter on when the matter has not been satisfactorily resolved through initial consultation, the RTA between the EU and CARIFORUM States allows the parties to require a committee of three experts to be convened to examine the matter and present a report within three month of its composition.

As underscored in Figure 42, RTAs with specific environmental consultations procedures are mainly negotiated between developed and developing countries, with the exception of the RTAs between the United States and Australia, Chile and Colombia, Peru and the Republic of Korea, Nicaragua and Chinese Taipei, Chile and Hong Kong (China), and the Republic of Korea and China. The RTAs to which New Zealand is a party with Chinese Taipei and the Republic of Korea, as well as the RTA between Canada and the Republic of Korea include the highest number of different environmental consultations provisions under the RTAs' environment chapter. Other agreements with a relatively large number of consultation provisions include the RTAs negotiated by the EU with Central America, the Republic of Moldova and Georgia, and the RTAs to which the United States is a party with Peru, the Republic of Korea, Colombia, and Peru. As discussed next in greater details, in certain of these RTAs, environmental consultations must often be undertaken prior to invoke the specific dispute settlement procedures established under the RTA's environment chapter or the general provisions of the RTA's dispute settlement chapter. Conversely, for other of these RTAs, environmental consultations are the only formal procedures at the disposal of the parties to resolve an issue arising under the environment chapter by explicitly excluding the environment chapter from the RTA's dispute settlement.

Figure 42: Evolution of provisions related to environmental consultations under the RTA's environment chapter



Source: Computations based on WTO RTA database.

5.11.3 Consultations on environment-related matters under the environmental side agreements

Besides the RTA's chapters on investment and environment, environment-related consultations procedures are also included in a limited number of side agreements, namely 13 environmental cooperation agreements, a memorandum of understanding on environmental cooperation, a protocol on environment and natural resources management, and an arrangement on environment.[56] None of the joint statements on environmental cooperation associated with a few RTAs refer to environmental consultations.

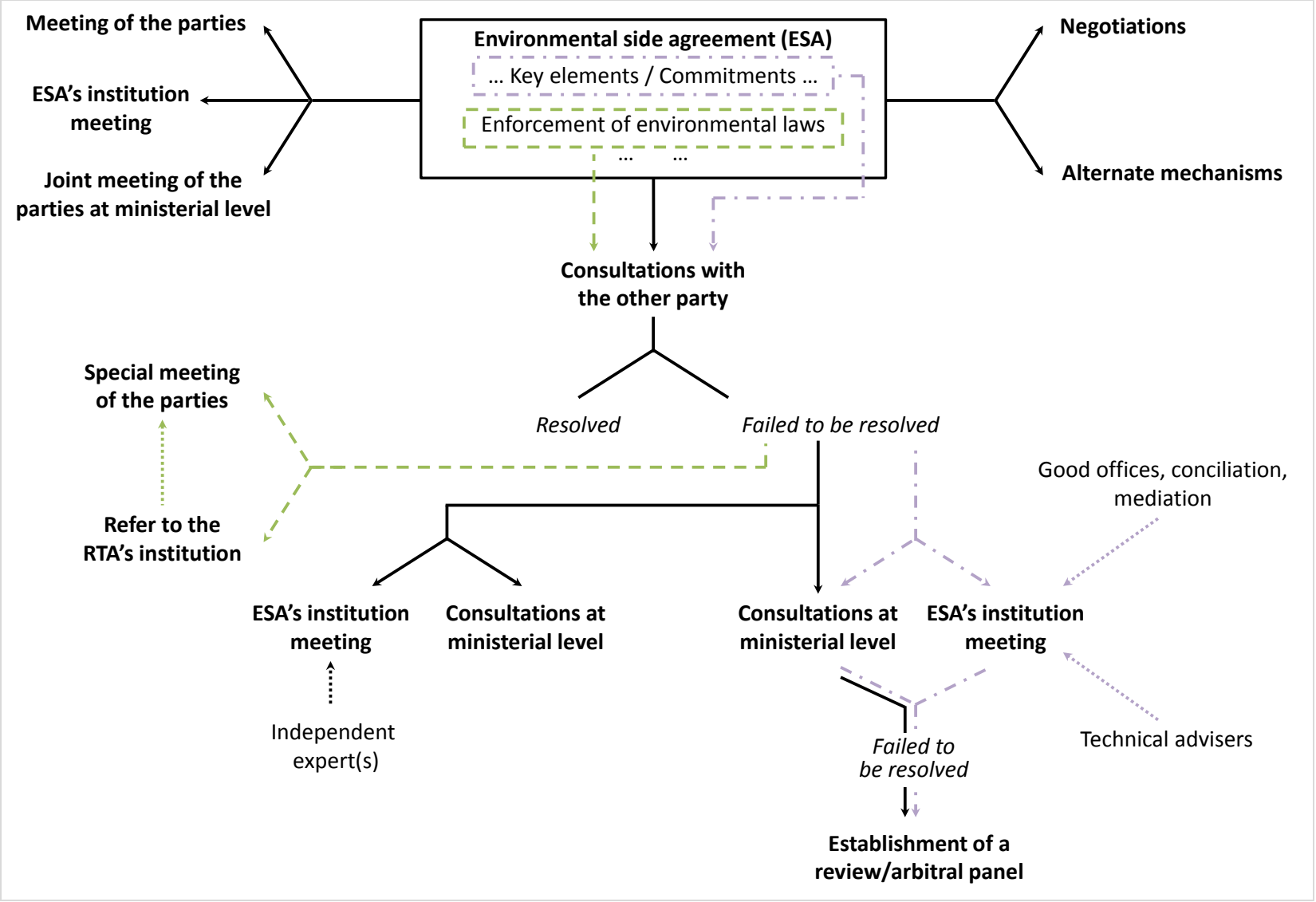
Figure 43 summarizes the different structures and procedures associated with the environmental consultations provisions established under the 16 environmental side agreements. Similar to the case of environmental consultations provisions in RTAs' environment chapter, the provisions range from consultations and meetings among the parties to meetings of the institution established under the environmental side agreement or RTA. Although the language of the environmental consultations provisions established in environmental side agreements is on many aspects relatively similar to the one considered in RTAs' environment chapter, consultations provisions in environmental side agreements are mostly idiosyncratic or specific to a limited number of agreements.

In addition, despite similarities with environmental consultations in RTAs' environment chapter, a limited number of environmental side agreements limit the scope of the matters that can be object of consultations. The environmental cooperation agreements associated with, respectively, the NAFTA and the RTA between Canada and Chile only allow a party to request consultations with the other party when it considers the other party has persistently failed to effectively enforce its environmental laws. Similarly, the consultations procedures established under both environmental cooperation agreements of the Trans-Pacific Strategic Economic Partnership (TPSEP) and the RTA between Panama and Chile are only available to address issues arising over the application of the agreement's article referring, among other things, to the harmonization of environmental laws with international environment commitments, their use not for trade protectionist purposes and the failure to enforce or administer them. The environmental consultations in the remaining 12 environmental side agreements cover the entire respective agreement.

A second feature of most recent environmental cooperation agreements that differ from most environmental consultations provisions under the RTA's environment chapter is the possibility for a party to request consultations at the ministerial level regarding any issues or matters arising under the environmental agreements if the initial consultation procedure through the national coordinating officers or points of contact failed to resolve the issue. The environmental side agreements to which Canada is a party with Peru, Colombia, Jordan, Panama and Honduras foresee such possibility.

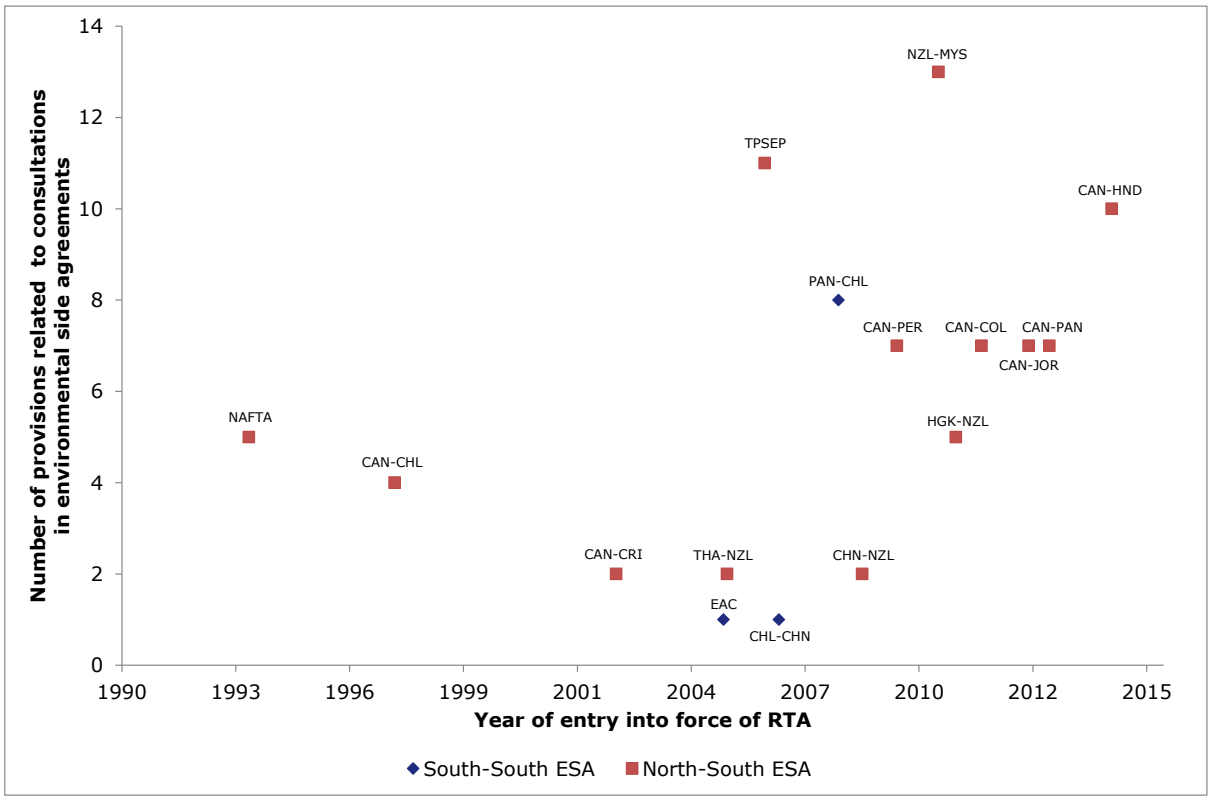
[56] Environmental cooperation agreement associated with RTAs incorporating an environmental chapter, such as all post-NAFTA RTAs to which the United States is a party (except the agreement with Jordan), do not include any environmental consultations provisions. In those cases, environmental consultations procedures are only available in the RTA's environment chapter. A few other side agreements do not refer to environmental consultation procedures. For instance, the United States-Jordan joint statement on environmental technical cooperation, and the joint statement on trade and environment associated with the signing of the RTA between Peru and Japan do not mention any environmental consultations procedures.

Figure 43: Overview of environmental consultations' structure in environmental side agreements



Just like the case of environmental consultations in RTAs' environment chapter, environmental side agreements negotiated between developed and developing countries tend to incorporate the highest number of different provisions on environmental consultations. As highlighted in Figure 44, the New Zealand-Malaysia agreement on environmental cooperation includes the highest number of different environmental consultations provisions. Under the agreement, the parties may request consultations with the other party regarding any matter arising over the interpretation or operation of the agreement. The national contact point is in charge of identifying the office or official responsible for the issue and in facilitating communication between parties if necessary. In case the consultations do not resolve the matter, each party has the possibility to request a meeting of the environment committee established under the environmental cooperation agreement in order to assist in resolving such issues. The environment committee has the possibility to request advice from an independent expert(s) in order to assist its deliberations. Besides establishing a timetable for the institution meeting, the consultations procedures require the committee to produce a report, to be made public, providing conclusions and recommendations on resolving the issue. The environmental cooperation agreement further calls on the party to implement the conclusions and recommendations as soon as practicable.

Figure 44: Evolution of provisions related to environmental consultations under environmental side agreements



Source: Computations based on WTO RTA database.

The environmental consultations provisions of the environmental cooperation agreement among the parties to the TPSEP, to which New Zealand is also a party, are also relatively detailed but are limited to issues arising over the application of the cooperation agreement's article on key elements and commitments. Besides initial consultation between the parties, the cooperation agreement provides for the possibility, if the issue failed to be resolved, to request a special meeting of the parties or refer to the TPSE commission established under the RTA for discussions. The environmental cooperation agreement requires the special meeting of the parties to produce a report and the concerned party(ies) to implement the conclusions and recommendations of the report as soon as practicable. Similarly, the environmental cooperation agreement between Panama and Chile, which is the only notified agreement between developing countries to incorporate a relatively high number of environmental consultations provisions, mentions the possibility to hold a meeting of the committee established under the cooperation agreement if the

matter over the application of the cooperation agreement's article on key elements and commitments has not been satisfactorily resolved through consultations. The environmental cooperation agreements negotiated by Canada with Jordan, Panama, Peru, Colombia and Honduras follow a slightly different approach by establishing the possibility to request consultations at the ministerial level if the parties have failed to resolve the matter arising under the cooperation agreement.

5.12 Dispute settlement procedures

While consultations procedures are essential to resolve amicably any dispute that might arise between parties, a number of bilateral, regional and multilateral agreements provide for dispute settlement procedures by enabling the parties to the agreement to detect, prove and retaliate against violations of the terms of the agreement in a specified framework. According to economic theory, dispute settlement mechanisms constitute a means to enforce the commitments established under the agreements through its enforcement capacity and enforceability.[57] Enforcement capacity is defined as the ability to reciprocate in a credible manner against a violation of the agreement's commitment. Enforceability encompasses the ability for the complaining party to (i) identify a provision in the agreement and prove its infringement (verifiability); (ii) identify the violation (observability); and (iii) quantify the damage sustained as a result of the violation.

A limited but increasing number of RTAs, namely 45 agreements, establish environment-related dispute settlement procedures. Just like environmental consultations provisions, the nature, scope and extent of environment-related provisions on dispute settlement procedures in RTAs hinge on two main elements: the relevant type of environment-related provisions and their location within and with respect to the RTA.[58] As summarized in Figure 45, four different non-mutually exclusive contexts can be identified in which environment-related provisions are implicitly or explicitly covered by the dispute resolution procedures: (i) choice of forum; (ii) investment chapter; (iii) environment chapter; and (iv) environmental cooperation agreement.

5.12.1 Choice of dispute settlement forum

The first case of specific environment-related provisions on dispute settlements concerns the provision clarifying the relation between the RTA and the specific trade obligations set out in covered MEAs in case of inconsistency. As discussed in section 5.4 on MEAs, ten RTAs, namely the RTAs to which Canada is a party with Mexico and the United States (NAFTA), Chile, Costa Rica, Peru, Colombia, Panama, the Republic of Korea and Honduras and the RTAs between Chile and Mexico, and between Nicaragua and Chinese Taipei, incorporate a provision on the choice of forum, allowing a complaining party to resort only to the RTA's dispute settlement procedures. This provision can however only be invoked when a party complained against claims that a measure is subject to the article stipulating that specific trade obligations set out in covered MEAs shall prevail to the extent of the inconsistency with the RTA. A detailed review of the dispute settlement mechanisms in these ten RTAs is outside the scope of this study given that these dispute settlement procedures are not specific to environment-related disputes.[59] The only additional environment-related provision, included in the dispute settlement chapter of the NAFTA and the RTAs to which Chile is a party with Canada, Mexico and the United States, provides the panel with the possibility to request a written report of a scientific review board on any factual issue concerning environmental matters raised by a disputing party in a proceeding, subject to such terms and conditions as such parties may agree.[60]

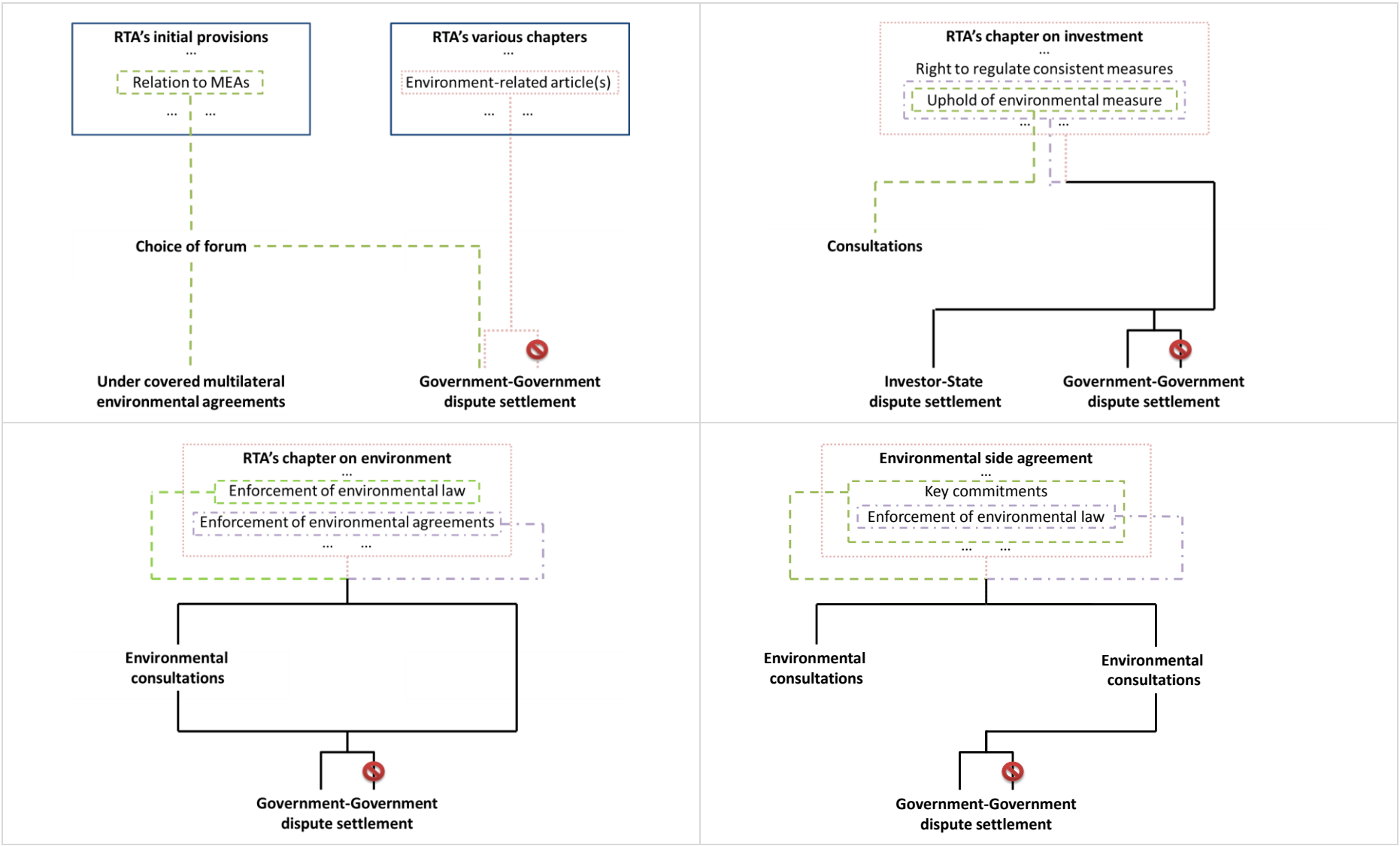
[57] See WTO (2007) for a discussion on how dispute settlement mechanisms can contribute to the enforcement of international trade agreements.

[58] The analysis does not consider the case of energy chapter that have been incorporated in a number of recent RTAs.

[59] See Chase et al. (2014) for more information on the different models of dispute settlement mechanisms in RTAs.

[60] Several other RTAs include a similar provision but without explicitly mentioning the environment.

Figure 45: Types of environment-related consultations and dispute settlement procedures



In all these ten RTAs, the choice of forum provision covers the CITES, the Montreal Protocol, and the Basel Convention. The RTA between Canada and Colombia also includes the Rotterdam Convention, while the most recent RTAs negotiated by Canada with Peru, Jordan, Panama, the Republic of Korea and Honduras mention the Rotterdam Convention as well as the Stockholm Convention. Many of these RTAs include another provision that foresees the possibility to modify the list of covered MEAs.

The NAFTA also includes another specific environment-related provision on the choice of forum when the dispute concerns a sanitary and phytosanitary or standards-related measure adopted or maintained by a party to protect animal or plant life or health, or environment, and that dispute raises factual issues concerning the environment, health, or conservation, including directly related scientific matters. In this context, when the responding party requests in writing that the matter be considered under the NAFTA, the complaining party has the possibility thereafter to have recourse solely to the NAFTA's dispute settlement procedures to address that matter.[61]

Finally, the dispute settlement procedures established under the NAFTA, and the RTAs between Canada and Chile and between Mexico and Chile provide the panel with the possibility, upon request of a party, or on its own initiative if the parties disapprove, to seek information and technical advice, including information and technical advice concerning environmental matters raised by a party in a proceeding, from any person or body that the panel deems appropriate. The RTA between the United States and Chile includes a similar provision, but refers to the possibility to seek information and technical advice concerning environmental matters without specifying a written report of a scientific review board.

5.12.2 Dispute settlement procedures on environment-related matters under the RTA's investment chapter

The second case of specific environment-related provisions on dispute settlements refers to provisions within the RTA's investment chapter. Unlike the RTA's (state-state) dispute settlement, the investor-state dispute settlement mechanism established under the investment chapter of certain RTAs provides foreign private investors with the possibility to challenge the host government on its compliance with (some of) the disciplines established under that RTA's investment chapter. 31 RTAs establish specific environment-related dispute settlement provisions in the context of these investor-state dispute settlement mechanisms.

The most common environment-related dispute settlement provision of the investment chapter, incorporated in 31 agreements, refers to expert reports. According to this provision, a tribunal, without prejudice to the appointment of other kinds of experts authorized by the applicable arbitration rules, and at the request of a disputing party or on its own initiative if the disputing parties disapprove, may appoint expert(s) to report in writing on any factual issue concerning environmental matters raised by a disputing party in a proceeding, subject to terms and conditions the disputing parties may agree. As mentioned above, a relatively similar provision is also included in the dispute settlement chapter of a few RTAs as well as the environmental consultations provisions established under some RTAs and environmental side agreements.

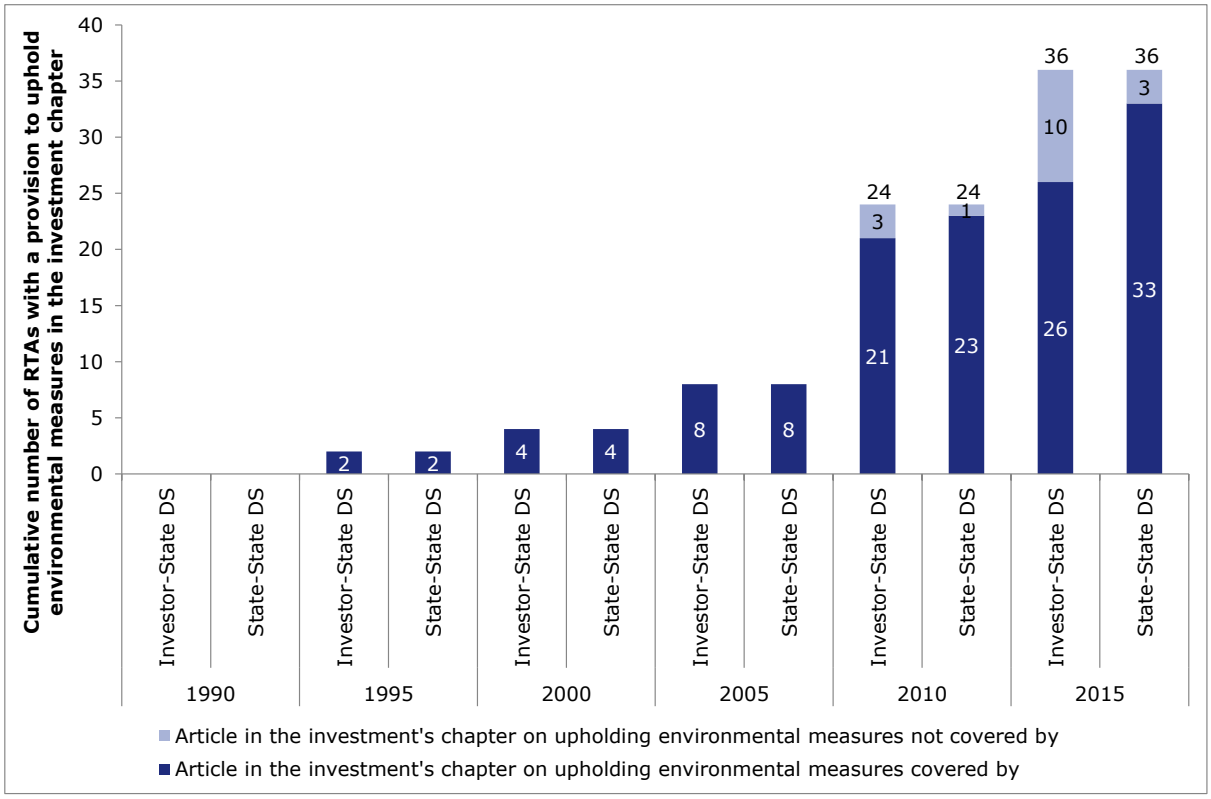
As discussed in detail in section 5.3 on domestic environment laws, different types of environment-related provisions in the context of the RTA's investment chapter have been identified, namely, (i) the right to adopt consistent environmental measures, (ii) an environment-related exception clause to performance requirements, (iii) a non-inconsistency of non-discriminatory environmental requirements, (iv) the obligation or recommendation to uphold environmental measures, (v) the promotion of corporate social responsibility, and (vi) a clarification regarding indirect expropriation in the context of environmental regulatory measures. One important question is therefore, which, if any, of these environment-related provisions included in the investment chapter are subject to the investor-state dispute settlement and/or the RTA's own government-government (state-state or party-to-party) dispute settlement. A detailed review of the RTAs with environment-related provisions in the investment chapter shows that more than 40 different situations exist, depending on which of the six types of articles

[61] Although not reviewed in this study, the chapter on sanitary and phytosanitary measures of a number of RTAs is excluded from the RTA's chapter on dispute settlement.

are included or not in the investment chapter, and covered or not by the investor-state and/or RTA dispute settlements.

One of the situations that has received considerable attention in the literature relates to the commitment not to exempt, eliminate, waive or derogate from domestic environmental measures to encourage investment.[62] The investment chapter of 36 RTAs incorporate this type of provisions, which is formulated with either the term "should" or "shall".[63] As confirmed in Figure 46, the obligation or recommendation established in the RTA's investment chapter to uphold environmental measures is, in most agreements, subject to the investor-state and government-government dispute settlements, unless it is explicitly excluded or there is no dispute settlement(s) established under the RTA or Investment Agreement. For instance, the RTAs to which Canada is a party with Colombia, Panama, Peru, the Republic of Korea and Honduras stipulate that an investor of a party can submit a claim to the investor-state dispute settlement regarding any alleged obligation breach of the investment chapter other than some obligations, including the commitment not to waive or otherwise derogate from environmental measures and the provision on corporate social responsibility. Overall, only 10 RTAs exclude the provision to uphold environmental measures from the investor-state dispute settlement mechanism, with two of them, namely the RTAs between Canada and Colombia, and between El Salvador, Honduras and Chinese Taipei, also excluding it from the scope of the government-government dispute settlement.[64]

Figure 46: Evolution of the provision to uphold environmental measures in the RTA's investment chapter



Source: Computations based on WTO RTA database.

[62] Provisions to uphold environmental law that are incorporated in the RTA's environment chapter and/or environmental side agreement are reviewed next.

[63] With a few exceptions, such as the Protocol on Investment to the New Zealand and Australia Closer Economic Relations Trade Agreement or the Agreement between Canada and Jordan for the Promotion and Protection of Investments, the investment chapter refers to the RTA's chapter on investment.

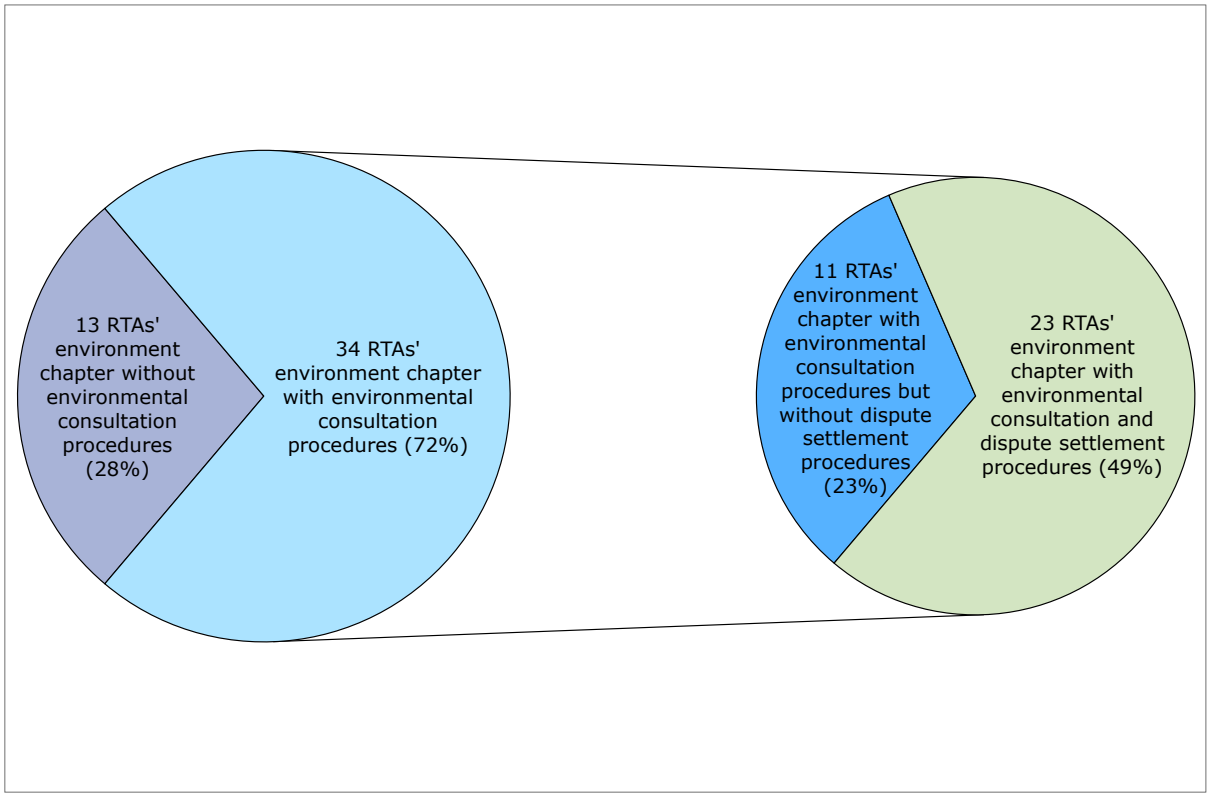
[64] The provision to upload environmental measures is not subject to the RTA between Canada and Jordan, because the provision is included in the Agreement between Canada and Jordan for the Promotion and Protection of Investments and not the RTA.

5.12.3 Dispute settlement procedures on environment-related matters under the RTAs' environment chapter

The third case of specific environment-related dispute settlement provisions applies to provisions in the RTA's environment chapter. As discussed in detail throughout this study, in recent years, an increasing number of RTAs incorporate a specific chapter dedicated to the environment or sustainable development. In some of these RTAs, formal procedures are established for complaints and settlement of disputes among parties regarding the interpretation and implementation of the environment chapter. Technically speaking, consultations procedures reviewed in the previous sub-section are often part of the dispute settlement mechanisms established in RTAs. In fact and as explained previously, environmental consultations often have to be undertaken prior to invoke the specific dispute settlement procedures established under the RTA's environment chapter or the general provisions of the RTA's dispute settlement chapter.

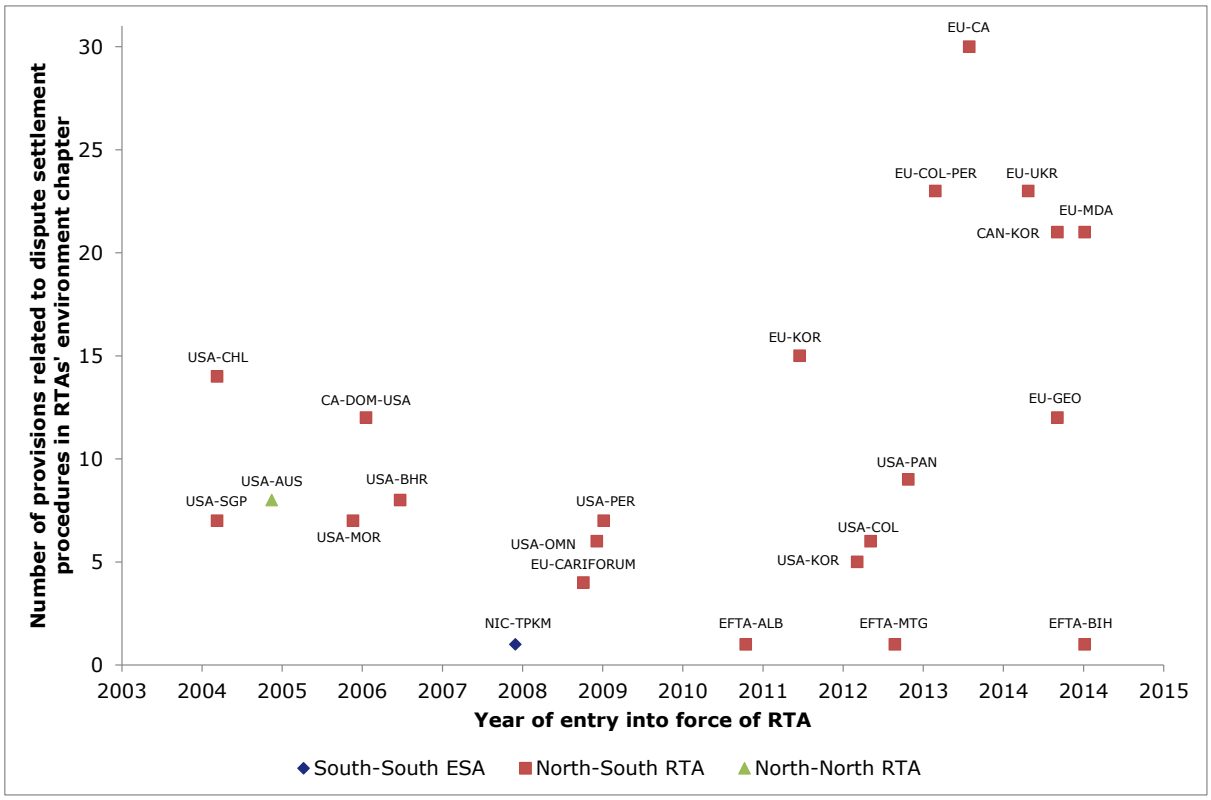
As shown in Figure 47, 23 RTAs out of the 46 agreements with an environment chapter contain environment-related provisions regarding dispute settlement procedures. Just like in the case of environmental consultations, these dispute settlement proceedings vary and range from specific environment-related enforcement procedures to formal arbitral proceedings established under the RTA's dispute settlement mechanism. As highlighted in Figure 48, RTAs with an environment chapter subject to dispute settlement procedures are mainly negotiated between developed and developing countries. The agreement between Nicaragua and Chinese Taipei is the only South-South RTA whose environment chapter is covered by the RTA's dispute settlement mechanism. As discussed below in greater detail, the RTAs with the highest number of different environment-related dispute settlement provisions involve mainly the EU and the United States, with the exception of the agreement between Canada and the Republic of Korea. Based on the review of the different types of environment-related dispute settlement provisions included in these 23 RTAs, environment chapter's provisions can be categorized into three different approaches.

Figure 47: Environmental consultations and dispute settlement procedures in the RTAs' environment chapter



Source: Computations based on WTO RTA database.

Figure 48: Evolution of provisions related to environmental dispute settlement under RTAs' environment chapter



Source: Computations based on WTO RTA database.

5.12.3.1 Provision(s) of the environment chapter covered by dispute settlement procedures with the possibility to impose trade sanctions

Fifteen RTAs, including all post-NAFTA RTAs to which the United States is a party, incorporate at least one provision of the environment chapter that is covered by the RTA's dispute settlement procedures. There are, however, difference between some of these RTAs with respect to the type of environment-related provisions covered by the dispute settlement procedures and the type of enforcement mechanism envisaged.

<u>Case 1</u>: A single provision of the environment chapter is covered by the RTA's dispute resolution procedures but is subject to specific environment-related provisions on enforcement mechanisms.

Six RTAs negotiated by the United States with Chile, Singapore, Morocco, Bahrain, Oman, and Central America and the Dominican Republic restrict their dispute settlement procedures to the obligation to not fail to effectively enforce environmental laws in a manner affecting trade between the parties. This obligation to enforce environmental laws is covered by the same dispute settlement procedures as any other commercial disputes, but is subject to specific qualifications requirements for panellists and a different enforcement mechanism.

The RTAs negotiated by the United States with Chile, and Central America and the Dominican Republic calls for the establishment and maintenance of a roster of individuals who have agreed to serve as panellists. Both RTAs establish pre-requisites for roster members, including expertise in environmental law or its enforcement, international trade, or the resolution of disputes arising under international trade agreements, and independence and no affiliation with the parties. Panellists to serve in an environmental dispute are required to meet the environment roster qualifications. Although the RTAs negotiated by the United States with Australia, Bahrain and Oman do not establish an environment roster, panellists are also required to have expertise or experience relevant to the subject matter that is under the environmental dispute. A similar provision is included in the US RTAs with Singapore and Morocco, without referring explicitly to the environment.

Under all these six RTAs, if a panel determines in its final report that a party has failed to effective enforce its environmental laws, and the parties are unable to reach an agreement on a resolution within 45 days of receiving the final report, or the complaining party considers that the other party has failed to observe the terms of the agreed resolution, the complaining party has the possibility at any time thereafter to request that the panel be reconvened to impose an annual monetary assessment on the other party. Unlike commercial disputes, procedures for environmental disputes place limits to the payment of annual monetary assessment at maximum 15 million US dollars annually, adjusted for inflation. The fine imposed by the panel and to be paid by the defending party is allocated to a fund established by the RTA's institution to improve or enhance the defending party's enforcement of its environmental law. Suspension of benefits is authorized if the party complained against fails to pay the monetary assessment.

<u>Case 2</u>: All provisions of the environment chapter are covered by the RTA's dispute resolution procedures.

Under nine RTAs, namely the US RTAs with Jordan, Peru, the Republic of Korea, Colombia, and Panama, the RTA between Nicaragua and Chinese Taipei, and the agreements negotiated by the EFTA states with Montenegro, Albania and Bosnia and Herzegovina, all provisions of the environment chapter are subject to the dispute settlement procedures and enforcement mechanisms established under their respective RTA.

All provisions of the chapter on environment of the RTA between the United States and Jordan, including the obligation to not (offer to) waive or otherwise derogate from environmental laws as an encouragement for trade with the other party, and the obligation to not fail to effectively enforce environmental laws in a manner affecting trade between the parties, share the same dispute resolution mechanism as the RTA's commercial provisions. According to the dispute settlement provisions, the affected party is entitled to take any appropriate and commensurate measure, if the dispute fails to be resolved under the dispute resolution procedures.[65]

More recently, the RTAs negotiated by the United States with Peru, the Republic of Korea, Colombia, and Panama differ from earlier US RTAs with respect to the scope of the provisions covered and the dispute settlement procedures. One of the new features of these four US RTAs is the inclusion of the obligation to adopt, maintain and implement laws to fulfil the obligations under covered MEAs. All four RTAs specify that to establish a violation of this obligation a party must demonstrate that the other party has failed to act in a manner affecting trade or investment between the parties. These four RTAs also require the parties not to fail to effectively enforce its environmental laws and not to derogate from environmental laws in a manner that weakens protection afforded in those laws in a manner affecting trade or investment between parties. In addition, the RTA between the United States and Peru includes an annex on forest sector governance, which is also covered by the RTA's dispute settlement procedure.

Although the dispute settlement procedures established under these four US RTAs apply to any disputes arising under the environment chapter, panellists in environmental disputes are subject to specific qualifications requirements. The RTA between the United States and Panama requires the establishment of an environmental roster, while the RTAs negotiated by the United States with

[65] However, both parties reportedly agreed to not apply the RTA's dispute settlement enforcement procedures in a manner resulting in blocking trade. See Bolle (2014) for more details on enforcement mechanisms established in US RTAs.

Peru, the Republic of Korea, and Colombia require the panellists to have expertise relevant to the subject matter of the environmental dispute. Moreover, if the environmental dispute involves an obligation under a covered MEA, the panel must, in making its findings, consult fully with any entity authorized to address the issue under the relevant MEA, and defer to any interpretative guidance on the issue under the MEA to the extent appropriate in light of its nature and status, including whether the party's relevant laws, regulations, and other measures are in accordance with its obligations under the MEA. The panel is also to accept for purposes of its findings and determination one of the permissible interpretations under the MEA that is relevant to an issue in the dispute and being relied on by the party complained against.

Besides not restricting the RTA's dispute settlement procedures to certain provisions of the environment chapter, another new feature of these four US RTAs is the possibility for the complaining party to initially impose trade sanction on the non-complying party based on the value of the dispute. In the event, the complaining party proposes trade sanctions, the defending party can pay the annual monetary assessment either to the complaining party, or, if the parties agree, to a fund for distribution to the defending party to assist it in complying with its obligations.

The environment chapter of the RTA between Nicaragua and Chinese Taipei is also subject to the RTA's dispute settlement procedures. In the event of an environmental dispute under the agreement, the complaining party has the possibility to suspend the benefits to the defendant party, if the arbitral group decides that the measure at issue is inconsistent with the obligations of the RTA and the defendant party has failed to comply with the final report within the timeframe determined by the arbitral group in the final report. Similarly, the dispute settlement procedures established under the RTAs to which the EFTA states are a party with Albania, Montenegro and Bosnia and Herzegovina apply to disputes arising under the chapter on trade and sustainable development.[66] According to these RTAs' dispute settlement procedures, if an arbitration panel was convened, and the defendant party failed to comply with the ruling within a reasonable period of time and the parties to the dispute have not agreed on any compensation, the complaining party has the possibility to suspend the benefits to the defendant party until the ruling has been properly implemented or the dispute has been otherwise resolved.

5.12.3.2 Provisions of the environment chapter covered by dispute settlement procedures without the possibility to impose trade sanctions

Eight RTAs, including most of the post-2008 RTAs negotiated by the EU, incorporate at least one provision in the environment chapter that is covered by dispute settlement procedures but the enforcement mechanism explicitly excludes the possibility to impose trade sanctions. Just like the first approach, there are difference between some of these RTAs with respect to the type of environment-related provisions covered by the dispute settlement procedures and the type of enforcement mechanism envisaged.

Case 1: All provisions of the environment chapter except those related to cooperation are covered by the RTA's dispute resolution procedures but without the possibility to suspend trade concessions.

The EU-CARIFORUM States RTA is the only agreement whose provisions in the chapter on environment, except the article on environmental cooperation, is covered by the dispute settlement procedures established under the RTA. Some of the environment-related commitments include the obligation to ensure that environmental laws and policies provide for and encourage high levels of environmental protection and the agreement not to encourage trade or foreign direct investment by lowering the level of protection provided by domestic environmental legislation and derogating from, or failing to apply such legislation.

[66] Unlike other recent agreements signed by the EFTA states, these three RTAs do not include a provision explicitly mentioning that the RTA's dispute settlement chapter does not apply to the chapter on trade and sustainable development. The three RTAs specify, however, that if a party considers that a measure of another party does not comply with the obligations under the chapter on trade and sustainable development, it may have recourse to consultations according to the RTA's consultations procedure, but exclude the possibility to request the establishment of an arbitration panel if the party to which a request is made does not reply within ten days or does not enter into consultations within 20 days from the date of receipt of the request.

In the event an environmental dispute arises and the environmental consultations failed to resolve the matter in a satisfactory manner within nine months of the initiation of the consultations, a party has the possibility to bring the dispute under the RTA's dispute settlement procedures. Even though environmental and commercial disputes share most of the same dispute settlement procedures, the arbitration procedure establishes specific requirements when the dispute arises under the environment chapter. The arbitration panel has to be composed of at least two panellists with specific expertise on the matters covered by the environment chapter. In addition, the arbitration panel has to include in its ruling recommendation on how to ensure compliance with the relevant provision of the environment chapter. In fact, even if the complaining party is entitled to adopt appropriate measures when the defending party failed to comply with the arbitration panel ruling, the provision on temporary remedies in case of non-compliance explicitly rules out the suspension of trade concessions under the RTA as an appropriate measure for any environmental disputes.

Case 2: All provisions of the environment chapter are excluded from the RTA's dispute resolution procedures but are covered by a specific environmental dispute settlement procedure without the possibility to suspend trade concessions.

The RTAs to which the EU is a party with the Republic of Korea, Central America, Colombia and Peru, the Republic of Moldova, Ukraine and Georgia as well as the RTA between Canada and the Republic of Korea exclude the chapter on trade and sustainable development or on environment from the RTA's dispute settlement procedures, but establish a panel or group of experts procedures to exclusively address matters arising under the chapter on sustainable development or environment. Unlike the dispute settlement mechanisms established under RTAs, the panel or experts group proceedings do not provide for any sort of monetary remedies or trade sanctions. The scope, level of details, and structure of these panel or group of experts proceedings vary significantly between these seven RTAs.

As highlighted in Figure 48, the provisions establishing the proceedings of the experts' panel under the RTA between the EU and Central America are by far the most detailed. However, in comparison to the RTAs to which the EU is a party with the Republic of Korea, Colombia and Peru, the Republic of Moldova, Ukraine and Georgia RTAs, the agreement with Central America limits the application scope of the panel to the obligations (i) to effectively implement seven covered MEAs, (ii) to ratify CITES amendment to Article XXI, (iii) to ratify and effectively implement the Rotterdam Convention, (iv) to not waive or derogate from environmental legislation, and (v) to not fail to effectively enforce environmental legislation. The agreement further specifies in details the requirements regarding the establishment and maintenance of a list of persons who meet the qualifications to serve as experts. It also establishes the procedures and timeframes for selecting the panel experts, as well as the circumstances under which experts may not participate in a panel. The agreement describes the rules of procedure as well as the requirements and timeframes associated with the submission of the panel's initial report, including its recommendations. For instance, the panel's recommendation has to take into account the particular socio-economic situation of the parties. Finally, the agreement specifies the procedures and timeframes for the presentation of the final report, including its release to the public. The proceedings further require the parties to take into account the report and recommendation of the panel of experts and endeavour to discuss appropriate measures to be implemented, including possible cooperation to support implementation of such measures. The institution established under the RTA's environment chapter is in charge of monitoring the implementation of the actions determined by the party.

The proceedings of the experts group established under the other six RTAs are relatively less detailed and adopt different timeframes. For instance, the RTA between the EU and the Republic of Korea only specifies procedures and timeframes for the submission of the panel's report, without distinguishing between initial and final report.

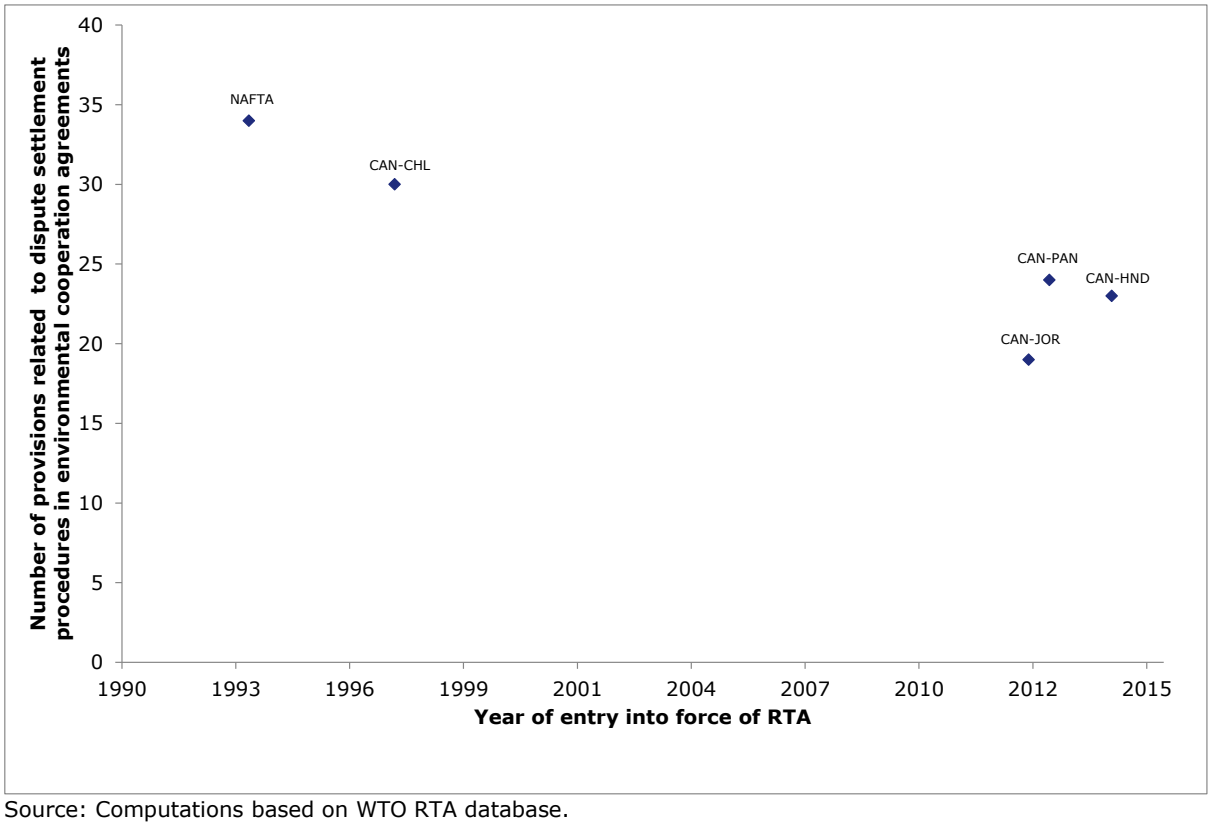
5.12.3.3 Provisions of the environment chapter excluded from any dispute settlement procedures

The remaining 24 RTAs with an environment chapter, such as the RTAs between Chile and Colombia, the EFTA states and Hong Kong (China), and New Zealand and Chinese Taipei, explicitly exclude the recourse to the dispute settlement procedures established under the RTA to address any matter arising under the environment chapter. The provision excluding the environment chapter from the RTA's dispute settlement can either be found in the environment chapter or the chapter on dispute settlement. Under 11 of these 24 RTAs, any issues arising under the environment chapter has to be resolved through environmental consultations. As pointed out previously, the level of details of environmental consultations vary considerably, with the agreement between New Zealand and Chinese Taipei having the highest number of provisions on environmental consultations.

5.12.4 Dispute settlement procedures on environment-related matters in the context of environmental side agreements

The last case of specific environment-related dispute settlement provisions covers environmental side agreements, in particular environmental cooperation agreements. As highlighted in Figure 49, out of the 24 environmental cooperation agreements associated with RTAs, only five agreements to which Canada is a party with the United States and Mexico (NAFTA), Chile, Jordan, Panama and Honduras establish specific environmental dispute resolution procedures. Although the NAFTA and the RTA between Canada and Chile incorporate the highest number of different provisions related to dispute settlement procedures, these five environmental cooperation agreements share a number of similar dispute settlement provisions. They all provide the possibility to request a review panel process, while specifying that no party can provide for a right of action under its domestic law against the other party on the ground that the other party has acted in a manner inconsistent with the respective environmental cooperation agreement.

Figure 49: Evolution of provisions related to environmental dispute settlement under environmental cooperation agreements



Source: Computations based on WTO RTA database.

As a follow up to the previous analysis, which highlighted three different approaches to dispute settlement procedures in the RTA's environment chapter, the review of the environment-related dispute settlement provisions established under environmental cooperation agreements distinguishes relatively similar, but often idiosyncratic, approaches.

5.12.4.1 A single provision of the environmental cooperation agreement covered by the environmental cooperation agreement's dispute settlement procedures with the possibility to impose monetary sanctions

Under the North American Agreement on Environmental Cooperation (NAAEC), the only provision covered by a specific environmental dispute settlement procedure concerns the commitment to not fail to effectively enforce environmental laws. In particular, the request for an arbitral panel is only possible if the matter is trade related and involves workplaces, firms, companies or sectors producing goods or providing services that are traded or competing between the parties.

The disputes settlement provisions set up a roster of individuals to serve in an arbitral panel, the qualifications required of panellists, including circumstances under which the participation in an arbitral panel is not allowed, and the timeframes for selecting the arbitral panel. The provisions also establish procedures and timeframes for the presentation of the initial and final report. Under the event, a panel determines in its final report that there has been a persistent pattern of failure by the party to effective enforce its environmental laws, and the disputing parties are unable to reach agreement on an action plan, or on whether the defending party is fully implementing an action plan, the complaining party has the possibility to request that the panel be reconvened to impose monetary enforcement assessments on the other party. These monetary enforcement assessments were not greater than 20 million US dollar for the first year after the entry into force of the NAAEC and are now capped at 0.007% of total trade in goods between the parties during the most recent year for which data are available. In the event the defending party fails to pay the monetary enforcement assessments, the complaining party can suspend the NAFTA's tariff benefits, except when Canada is the defending party. Suspensions of benefits in the form of increase in the rates of duty on originating good of the defending party is limited to the rates increase necessary to collect the monetary enforcement assessment. Additionally, the increase in duty rates cannot exceed the lesser of the rate that was applicable to those goods immediately prior to the NAFTA's date of entry into force, and the most-favoured-nation rate applicable to those goods on the date the party suspends such benefits.

The environmental cooperation agreement between Canada and Chile follows the same approach as the NAAEC, and provides for the possibility to impose the payment of a monetary enforcement assessment not greater than 10 million US dollars when the defending party fails to comply with the arbitral panel report. However, unlike the NAAEC the agreement between Canada and Chile rules out explicitly the possibility to suspend benefits under the RTA.

5.12.4.2 Two provisions of the environmental cooperation agreement covered by the environmental cooperation agreement's dispute settlement procedures but without the possibility to impose monetary sanctions

The environmental cooperation agreements to which Canada is party with Jordan, Panama and Honduras provide for a review panel process if a party considers, following ministerial consultations, that there is (i) a persistent pattern of failure by the other party to effectively enforce its environmental laws or (ii) a breach of the obligation to not (offer to) waive or otherwise derogate from its environmental laws in a manner that weakens or reduces the protections afforded in those laws to encourage trade or investment.

In comparison with the environmental cooperation agreements associated with the NAFTA and the RTA between Canada and Chile, the scope of application of the dispute resolution process in these three cooperation agreements is larger but monetary remedies cannot be imposed in case of non-fulfilment of the review panel's recommendations. Although the provisions on the review panel process in the three cooperation agreements are relatively similar to the provisions established under the cooperation agreements associated with the NAFTA and the RTA between Canada and Chile, there are a few difference, such as the composition of the panel with three panellists, instead of five. The three cooperation agreements also do not require the establishment of a roster of experts to serve in the review panel. The selection procedure of the chairperson of the review panel is also different, and provides for the recourse of the Secretary-General of the Permanent Court of Arbitration, in the agreement with Jordan, or the President of the International Court of Justice, in the agreements with Panama and Honduras, to appoint a chairperson, when the parties fail to select a chair within the timeframes.

There are also some differences in terms of dispute settlement procedures between the three environmental cooperation agreements. Unlike the environmental cooperation agreements negotiated with Jordan and Honduras, the cooperation agreement with Panama specifies that no party can request a review panel in the three-year period following the date of entry into force of the agreement. Both agreements with Panama and Honduras also explicitly mention that the parties may decide on a mutually satisfactory action plan to implement the review panel's recommendations.

5.12.4.3 Provisions of the environmental cooperation agreement covered by the RTA's dispute settlement procedures

The Framework Agreement on the Environment of MERCOSUR includes a provision explicitly stipulating that any disputes arising between the parties with respect to the application, interpretation or non-fulfilment of the provisions contained in the agreement shall be resolved by means of the dispute settlement system in force in MERCOSUR. Similarly, the EAC's Protocol on Environment and Natural Resources Management stipulates that in the event of a dispute between two or more parties concerning the interpretation or application of the protocol or its annexes, the parties concerned, who failed to reach an agreement through negotiations or other alternate dispute resolution mechanisms, may refer such dispute to the East Africa Court of Justice.

5.12.4.4 Provisions of the environmental cooperation agreement excluded from any dispute resolution procedures

The cooperation agreement between New Zealand and Hong Kong (China) is the only agreement to explicitly stipulate that no party can refer any difference over the interpretation, implementation or application of the agreement to a third party, or international tribunal for settlement.

5.12.4.5 Environmental cooperation agreements without any explicit reference to any dispute resolution procedures

The remaining 16 environmental cooperation agreements associated with RTAs do not include any provision referring to dispute settlement procedures, except, as discussed above, consultations procedures in 8 of them. Other forms of environmental side agreements, such as memorandum of understanding or arrangement on environmental cooperation also do not contain any dispute settlement procedures.

6 SYNTHESIS AND CONLUSION

The last 25 years have witnessed a rapid increase in regional trade agreements (RTAs) and intensification of their coverage, including with respect to the environment. Yet, the inclusion of environmental provisions in RTAs is not a recent phenomenon. Almost all RTAs notified to the WTO/GATT, namely 263 agreements (97%) incorporate at least one environment-related provision. More than 60 main types of environment-related provisions have been identified, many of which are found in a relatively limited number of RTAs. These provisions are found in the text of the RTAs, including in specific articles or chapters on the environment or sustainable development, as well as in some side documents, such as environmental side agreements. Based on this typology, four different types of RTAs with environment-related provisions can be distinguished:

(1) RTAs with only non-specific environment-related provisions:
These trade agreements include **only non-specific environment-related provisions**, which are defined as provisions referring to various issues, including the environment. Non-specific environment-related provisions include preamble language; provisions in the chapters on TBT and SPS measures; and exceptions and exclusions clauses.

(2) RTAs with only specific environment-related provisions on cooperation:
These trade agreements include (besides non-specific environment-related provisions, such as exceptions clauses and preamble language) **specific environment-related provisions on cooperation.** These provisions on environmental cooperation activities often constitute means to facilitate the implementation of the RTA's environment-related provisions and address specific environmental challenges identified by the parties, such as water management and air pollution.

(3) RTAs with only substantive specific environment-related provisions:
These trade agreements include (besides non-specific environment-related provisions, such as exceptions clauses and preamble language) **specific environment-related substantive provisions establishing commitments**. Some of these specific environment-related provisions establish commitments with respect to domestic environmental laws, including the commitment to effectively enforce them and not weaken them to attract trade and investment. Other specific provisions are related to MEAs, such as the relationship between the RTA and specific MEAs in the event of an inconsistency. Specific environment-related provisions are also found in the context of intellectual property, such as biodiversity and traditional knowledge.

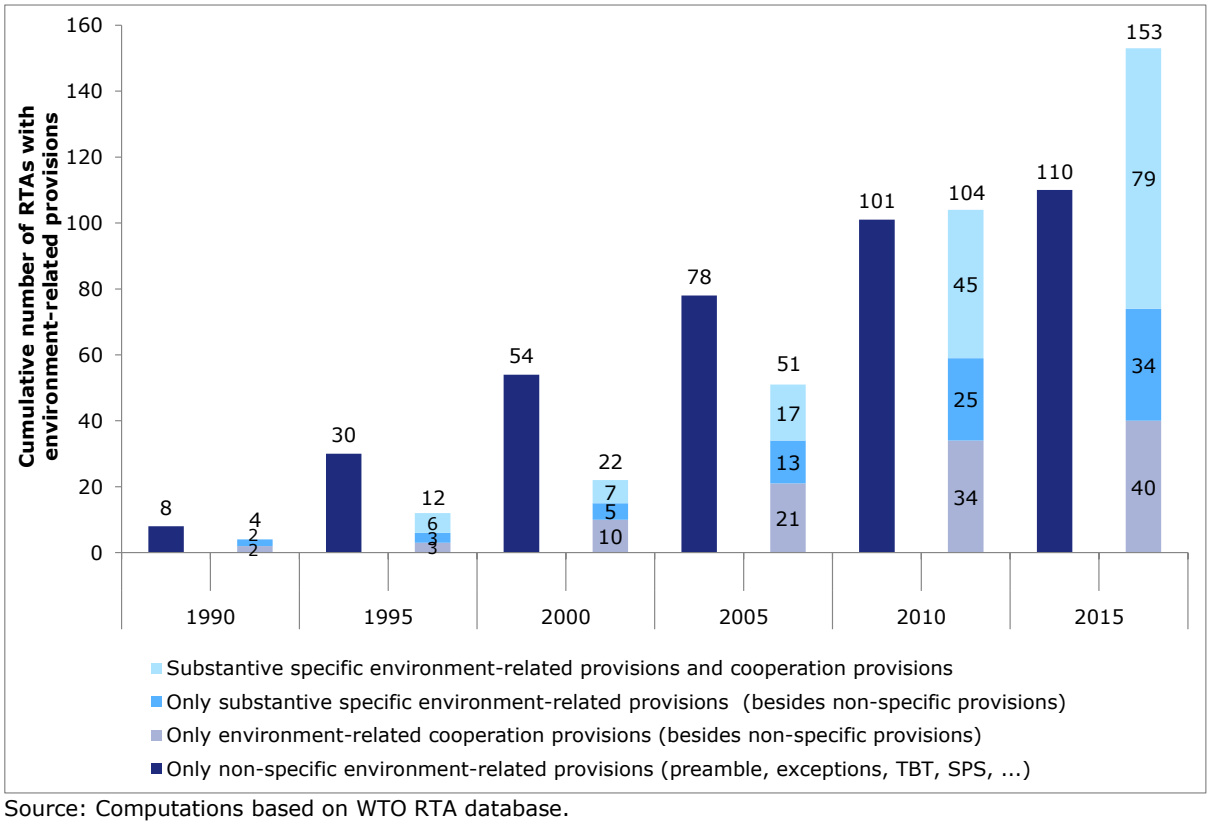
(4) RTAs with substantive specific environment-related provisions and provisions on environmental cooperation:
These trade agreements combine **substantive specific environment-related provisions and specific environment-related cooperation provisions** (besides non-specific environment-related provisions, such as exceptions clauses and preamble language). These RTAs typically includes detailed provisions related to domestic environmental laws and MEAs. More recently, specific provisions have also been included to promote environmental goods and services and address issues, such as climate change and trade in energy, fish products and forest-based products. A number of specific environment-related provisions build on Principle 10 of the UN Rio Declaration relating to transparency and public participation in environmental matters and laws, as well as procedural guarantees and access to justice in case of violation of domestic environmental law.

As depicted in Figure 50, until 2010, there were more RTAs with non-specific environment-related provisions than with specific environment-related provisions. However, the number of RTAs with specific environment-related provisions has increased faster than the number of RTAs with non-specific environment-related provisions. As a result, by May 2016, of the 270 notified RTAs, 153 agreements incorporate specific environment-related provisions.

Around 26% of the RTAs with specific environment-related provisions, namely 40 agreements, only contain cooperation provisions (beyond non-specific environment-related provisions such as exceptions clauses and preamble language). Most RTAs to which the EU is a party negotiated prior to 2008 include only specific provisions on cooperation. Other RTAs falling under this category include various RTAs involving Chile with, among others, India, Turkey, and Malaysia, and several RTAs signed by China with, among others, Chile, Peru, Singapore, and New Zealand. The RTAs to which the member states of the ASEAN are a party with India, Japan and the Republic of Korea also incorporate only promotion environment-related provisions.

More than 22% of the RTAs including specific environment-related provisions, representing 34 agreements, only incorporate substantive environment-related provisions (besides non-specific environment-related provisions such as exceptions clauses). This relatively large number is explained by the fact that for many of these 34 RTAs, the only specific environment-related provision (beyond the environmental exception clause) is a provision on the relation with covered MEAs and/or the commitment to not waive or otherwise derogate from domestic environmental measures to encourage investment. As noted previously, the commitment to uphold environmental measures is, in most RTAs, covered by the investor-state (if located in the investment chapter) and state-state dispute settlement procedures established under the RTA. For instance, several RTAs signed by Chile with, among others, Central American countries and the Republic of Korea contain only substantive specific environment-related provisions. Similarly, several RTAs negotiated by Panama with Central American countries and Chinese Taipei incorporate only substantive specific environment-related provisions. Other RTAs falling under this category include the agreements to which the EFTA states are a party with Colombia, Peru, Serbia and Ukraine.

Figure 50: Evolution of RTAs with specific environment-related provisions



Source: Computations based on WTO RTA database.

The remaining 52% of the RTAs with specific environment-related provisions, namely 79 agreements, establish both cooperation and substantive specific environment-related provisions. All RTAs to which the United States is a party, except the agreement signed with Israel, falls under this category. With the exception of the RTAs with Israel and the EFTA states, the other RTAs to which Canada is a party fall also under this category. Similarly, seven RTAs involving Japan with, among others, Indonesia, Brunei Darussalam, Philippines, and India, contain both substantive specific environment-related provisions and provisions on environmental cooperation. The most recent RTAs to which the EU is a party with the CARIFORUM States, the Republic of Korea, Colombia and Peru, Central America, the Republic of Moldova, Ukraine and Georgia, also combine substantive provisions and provisions on cooperation.

Most RTAs incorporating a high number of specific environment-related provisions establish specific institutional arrangements, such as environmental committee, in order to discuss and oversee the implementation of some of the environment-related commitments. Many RTAs provide also for consultations procedures for any environment-related matter arising under the RTA's environment chapter and/or side environmental agreements. Only a limited number of RTAs provide with specific dispute settlement procedures established under the RTA's environment chapter or environmental side agreement. Conversely, several RTAs explicitly exclude the environment chapter from the RTA's dispute settlement chapter.

Overall, the myriad of different environment-related provisions incorporated in RTAs is representative of the dynamic context, in which RTAs are negotiated. RTAs are often considered as a laboratory enabling countries to devise new provisions and address new issues and challenges. For instance, although not reviewed in this study, the Trans Pacific Partnership (TPP), negotiated by 12 countries in the Pacific region, include in the environment chapter a large number of new types of provisions covering various issues, such as the ozone layer protection, the protection of the marine environment from ship pollution, invasive alien species, transition to a low emissions and resilient economy, marine capture fisheries, as well as conservation and trade.[67] If these new types of provisions are any indications, the language and forms of environment-related provisions in RTAs is likely to keep evolving and become increasingly more specific.

[67] The parties to the TPP are Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the United States of America, and Viet Nam.

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