

# The Current Status and Insights of China's RTA Environmental Provisions

Yuhua Kang<sup>a</sup>, Shuhan Cao<sup>b, \*</sup>

College of Economics and Trade, Foshan University, Foshan, China

<sup>a</sup> 2607043864@qq.com, <sup>b</sup> 215494732@qq.com

## ABSTRACT

This paper systematically reviews the development status of environmental clauses in global and Chinese regional trade agreements (RTAs). At the global level, RTA environmental provisions have shown an evolutionary trend from decentralized distribution to the establishment of independent environmental chapters, and from principled provisions to legally binding provisions. China has signed 23 free trade agreements, covering various forms of environmental provisions, but there are still few agreements with special environmental chapters, and the enforcement of laws needs to be improved. Based on the current situation, this paper puts forward three enlightenments: first, take the initiative to lead and participate in the negotiation and upgrading of high-standard RTA environmental clauses; second, actively benchmark international rules and optimize the institutional environment of the domestic service industry; The third is to strategically deepen and expand the RTA network, giving priority to promoting "South-South cooperation" and rule docking with developing countries.

## KEYWORDS

RTA environmental clauses; Development status; Countermeasure enlightenment

## 1. INTRODUCTION

In the past, the content of regional trade agreements (RTAs) mainly focused on tariff reductions. Since the 21st century, the focus of RTAs has gradually shifted to non-trade areas, and the number of environmental provisions in trade agreements has increased significantly, especially in agreements with developing countries, where this trend is particularly noticeable [1]. Before the 1970s, almost no trade agreements mentioned environmental issues. Starting in the 1970s, environmental issues gradually became part of the agenda in RTAs. By the 1990s, some organizations began promoting the inclusion of environmental protection provisions in trade agreements or multilateral agreements. The United States was the first to introduce environmental regulations into trade agreements and gradually established high environmental standards. In early RTAs, environmental provisions usually appeared in the form of non-binding annexes, mainly containing some principle-based regulations and cooperation frameworks. However, with the involvement of the United States, it began to push for stricter environmental provisions and aimed to make them core elements of the Trans-Pacific Partnership agreement.

The simple binary method is the most commonly used measurement approach in early studies, and its core is to simplify the presence or absence of environmental provisions in RTAs into a binary dummy variable. This method only requires determining whether the agreement contains any environment-related clauses, without considering the number, depth, or legal binding nature of the provisions. Baghdadi mainly examined the inclusion of environment clauses in trade agreements by

introducing a dummy variable into the traditional gravity model to study the trade effects of RTAs [2]. If the regression coefficient of the dummy variable is significantly positive, it indicates that this dummy primarily generates trade creation effects; if the regression coefficient is significantly negative, it indicates that this dummy generates trade diversion effects. The main advantage of this method lies in its simplicity and the ease of obtaining data, making it suitable for large-sample macro-comparative studies. However, its obvious drawback is that it cannot capture differences in the quality and depth of environmental provisions across different RTAs. An RTA that only contains a principled environmental statement is treated the same as an RTA that includes detailed environmental chapters, specific commitments, and enforcement mechanisms under the binary method, which clearly overlooks the actual content and potential impact of the environmental provisions.

In order to explore the heterogeneity of different RTA environmental clauses, scholars classify and discuss RTA environmental clauses according to their content, and use the clause statistics method to measure RTA environmental clauses: RTA environmental clauses are divided into five categories: "non-exclusion" clauses, balance clauses, exclusion clauses, conflict clauses, and procedural clauses. Berger divide environmental provisions into 9 categories: mentioning environmental objectives in the preamble or other chapters, environmental exceptions, mentioning multilateral environmental agreements, including separate environmental or sustainable development chapters, obligations to uphold environmental law, right to incorporate regulated environmental matters, cooperation on environmental issues, transparency in environmental issues, and public participation in environmental affairs [3]. Through an in-depth analysis of the environmental clauses of regional trade agreements signed by China, India, Indonesia, Brazil and Mexico, it is found that over time, more environmental provisions are involved in regional trade agreements. Second, when signed with OECD countries, these RTAs tend to cover more environmental issues. Martínez-Zarzoso measure environmental terms with depth and breadth [4]. Breadth refers to the degree to which environmental issues receive attention in the agreement, measured by statistical numbers of clauses involving environmental issues, the coverage of clauses, and the level of detail of clauses. The clause statistics method has made significant progress compared with the simple dichotomy, and can reflect the richness and coverage of RTA environmental clauses to a certain extent. However, this approach still has limitations: it ignores the qualitative differences and legal effect of the clauses, fails to distinguish between symbolic clauses and substantive commitments, and fails to capture the interaction and overall structure between clauses.

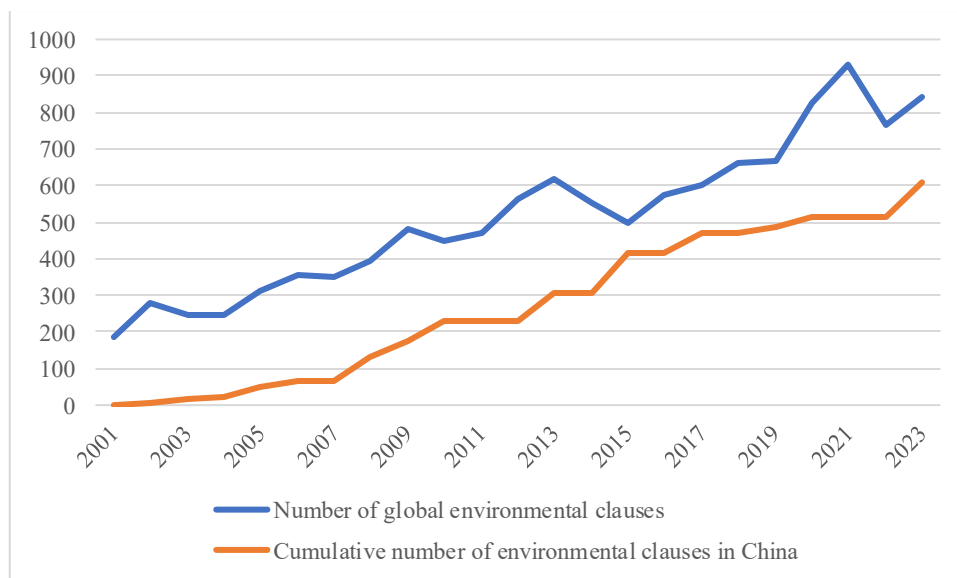
To better evaluate the effectiveness of environmental provisions, their depth and the strength of legal enforcement are commonly employed as metrics. Regarding in-depth analysis of provisions, Horn pioneered the classification of clauses into 'WTO+' and 'WTO-X' provisions, assessing their legal enforceability [5]. 'WTO+' provisions comply with current WTO-authorized bilateral trade agreement rules, where parties undertake bilateral commitments exceeding their multilateral obligations, encompassing 14 sub-category indicators. The 'WTO-X' category includes PTA provisions addressing issues beyond current WTO authorisation, comprising 38 sub-category indicators. For instance, no environmental protection commitments exist within the WTO framework. Consequently, environmental obligations are categorised as WTO-X. Furthermore, provisions are classified as legally enforceable if the legal language is sufficiently explicit and does not exclude dispute settlement under the PTA. Conversely, provisions that omit reference to dispute settlement procedures under the agreement or contain weak legal language are deemed non-enforceable. Subsequently, Dür expanded the scoring domains and refined the categorisation, conducting in-depth measurements of 587 agreements to construct the Trade Agreement Design Database [6]. Hofman established a new database to perform deep measurements of RTA content, examining the scope of provisions and legal enforceability [7]. This database encompasses 279 agreements signed by 189 countries between 1958 and 2015, reflecting the full suite of preferential trade agreements in force and notified to the WTO as of 2015. Morin established a trade agreement database based on 630 agreements (including annexes, drafts, etc.) concluded between 1947 and 2016, covering 14 broad domains: Principles, Environmental Protection Levels, Legislation and Decision-Making,

Interactions Between Environmental and Non-Environmental Issues, Implementation of Domestic Measures, Means to Promote Environmental Protection, Cooperation on Environmental Matters, Specific Trade-Related Measures, Assistance to Developing Countries, Specific Environmental Issue Areas, Agreement Implementation, Established Institutions, Dispute Settlement Mechanisms, and Multilateral Environmental Agreements, containing 308 environmental provisions in total[8]. Scholars have categorised post-border provisions in RTAs into eight areas: investment, capital flows, visas and asylum, intellectual property rights, competition policy, environment, labour, and public procurement. They employ formulae to calculate an RTA post-border provision depth index. Through scoring and weight adjustment methods, these provisions yield three metrics: weighted environmental provision scores, breadth-weighted scores, and depth-weighted scores. The majority of empirical studies on environmental provisions in regional trade agreements currently employ these depth measurement methodologies to examine the impact of such provisions on trade, environmental outcomes, and other aspects for contracting parties.

## **2. CURRENT STATUS OF RTA ENVIRONMENTAL PROVISIONS**

### **2.1. Global Development Characteristics**

Looking back at the evolution of environmental provisions, they were first incorporated into a regional trade agreement as early as the 1992 North American Free Trade Agreement. These provisions were scattered across five chapters and the preamble of that agreement, without a dedicated environmental chapter, and covered relatively few environmental issues. Subsequently, as the 21st century commenced, growing international concern over conflicts between ecological challenges and trade development led to an increase in high-standard regional trade agreements featuring dedicated environmental chapters. Examples include the United States-Mexico-Canada Agreement, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, and the United States-Korea Free Trade Agreement. The signatories to such high-level regional trade agreements are predominantly developed economies. In contrast, environmental provisions in RTAs signed by developing countries exhibit lower coverage rates and lag in development. For instance, China only signed its first regional trade agreement with a dedicated environmental chapter—the China-Korea Free Trade Agreement—in 2015. Regarding the legal enforceability of environmental provisions, only RTAs with robust legal binding force can ensure signatories elevate domestic environmental regulation standards and effectively fulfil environmental obligations stipulated in the agreements. Currently, environmental provisions in RTAs signed by developed nations exhibit comprehensive legal coverage, reflecting their commitment to environmental protection. Examples include the United States–Chile Free Trade Agreement and the United States–Australia Free Trade Agreement. Summarising the developmental characteristics of environmental provisions in RTAs, these rules are increasingly prioritised by signatory states. They have evolved from being scattered across various chapters to occupying dedicated environmental sections within agreements. The content of environmental provisions continues to be refined, with a growing emphasis on legal enforceability, reflecting the heightened importance attached to environmental protection by contracting parties. As illustrated in Figure 1, in 2023 alone, the number of environmental provisions notified to the WTO and currently in force reached 840. That same year, China's cumulative total of environmental provisions that had entered into force stood at 609.



**Figure 1.** Number of Environmental Provisions in RTAs Entering into Force (2001–2023)

Source: World Bank

## 2.2. The Current State of China's Development

**Table 1.** Status of China's RTA Signatures

Signing Date	RTA Name	Countries/Regions Involved	Effective Date
2024.8	China-Belarus	Belarus	Not in force
2023.1	China-Serbia	Serbia	2024.7
2023.8	China-Nicaragua	Nicaragua	2024.1
2023.5	China-Ecuador	Ecuador	2024.5
2020.11	Regional Comprehensive Economic Partnership Agreement (RCEP)	Japan, South Korea, Australia, New Zealand, Singapore, Indonesia, Malaysia, Philippines, Thailand, Brunei, Vietnam, Laos, Myanmar, Cambodia	2022.1
2020.1	China-Cambodia	Cambodia	2022.1
2019.1	China-Mauritius	Mauritius	2021.1
2019.4	Second Phase of China-Pakistan Free Trade Agreement	Pakistan	2019.12
2018.11	Upgraded China-Singapore Free Trade Agreement	Singapore	2019.1
2017.12	China-Maldives	Maldives	2025.1
2017.11	Upgraded China-Chile Free Trade Agreement	Chile	2019.3
2017.5	China-Georgia	Georgia	2018.1
2015.11	Upgraded China-ASEAN ("10+1")	10 ASEAN Member States	2016.7
2015.6	China-Australia	Australia	2015.12
2015.6	China-South Korea	South Korea	2015.12
2013.7	China-Switzerland	Switzerland	2014.7
2013.4	China-Iceland	Iceland	2014.7
2010.4	China-Costa Rica	Costa Rica	2011.8
2009.4	China-Peru	Peru	2010.3
2008.1	China-Singapore	Singapore	2009.1
2008.4	China-New Zealand (Upgraded)	New Zealand	2008.1
2006.11	China-Pakistan	Pakistan	2007.7
2005.11	China-Chile	Chile	2006.1
2003.6	CEPA	Hong Kong, China; Macau, China	2004.1
2002.11	China-ASEAN	Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei, Vietnam, Laos, Myanmar, Cambodia	2004.1

Data Source: Compiled by the author based on China FTA Services Network (<http://fta.mofcom.gov.cn/>).

Since joining the World Trade Organisation, China has successively concluded free trade agreements with ASEAN, Chile, Pakistan and other nations, with the majority incorporating environmental protection provisions. According to data published by the China Free Trade Zone Service Network, as of January 2026, China had signed 23 free trade agreements with 30 countries and regions. Details of the RTAs signed by China and their effective dates are presented in Table 1.

The forms of environmental protection provisions in China's RTAs include environmental exception clauses, preambles, investment chapters, Technical Barriers to Trade (TBT), Sanitary and Phytosanitary (SPS) measures, technical cooperation, government procurement, market access, and environmental chapters. Preambles and SPS measures primarily require parties to adhere to environmental protection and sustainable development goals. Preambles are not legally binding, while SPS measures contain specific requirements and provide dispute settlement mechanisms and methods, giving them certain legal force. Exception clauses and investment chapters mainly reflect the legal binding force of environmental provisions, prohibiting trade and investment activities that weaken environmental protection, and partly involve trade liberalization and differentiation objectives for green products. Technical cooperation and TBT primarily address assistance for sustainable resource use and environmental protection, including provisions for technical, financial, and other aid on environmental issues, and setting barriers for products not meeting environmental technical requirements. Environmental chapters cover various contents including environmental exceptions, environmental cooperation, environmental service market access, etc., encompassing almost all environment-related topics seen under WTO and FTA frameworks, such as transparency requirements, environmental regulation, and environmental service market access, highlighting the mutual support between environment and trade. Table 2-2 lists the forms of environmental protection provisions covered by each RTA. Only the China-Switzerland FTA, China-South Korea FTA, and China-Georgia FTA have dedicated environmental chapters.

**Table 2.** Content of Environmental Provisions in China's Signed RTAs

RTA Name	Env. Exception	Preamble	Investment Chapter	TBT	SPS	Technical Cooperation	Government Procurement	Market Access	Env. Chapter
China-Serbia		√			√				
China-Nicaragua		√	√	√					
China-Ecuador	√	√	√	√	√				
RCEP	√	√	√	√	√				
China-Cambodia			√	√					
China-Mauritius			√						
China-Georgia		√			√				√
China-Australia			√	√	√				
China-South Korea	√	√	√	√	√	√			√
China-Switzerland		√			√				√
China-Iceland		√		√	√				
China-Costa Rica	√	√	√	√	√		√		
Cross-Strait Economic Cooperation Framework				√	√				
China-Peru	√	√		√	√	√			
China-Singapore	√						√		
China-New Zealand	√	√		√	√			√	
China-Pakistan		√			√				
China-Chile		√			√				
Mainland-Macau CEPA	√				√	√			
Mainland-Hong Kong CEPA	√				√	√			
China-ASEAN	√						√		

Data Source: Compiled based on China FTA Services Network (<http://fta.mofcom.gov.cn/>). Note: The China-Belarus RTA text is not yet published, and the China-Maldives RTA does not involve environmental provisions, so they are omitted from the table.

### 3. COUNTERMEASURES

First, actively lead the negotiation and upgrading of high-standard RTA environmental provisions. The government should participate in and lead the new generation of RTA negotiations more actively and strategically, especially regarding agreement upgrades with major service trade partners. In RTA negotiations, China should proactively set environmental agendas, promote the construction of a fair, inclusive, and enforceable environmental provisions system, focus on advancing substantive clauses proven to have significant trade-promoting effects—such as "environmental enforcement mechanisms" and "Multilateral Environmental Agreement cooperation"—and enhance their legal enforceability. Simultaneously, China should advocate for establishing flexible transition periods and technical assistance mechanisms that consider the interests of developing countries, ensuring environmental provisions can both protect the environment and effectively translate into drivers for trade development.

Second, use RTA environmental provisions as an opportunity to benchmark and optimize the domestic service industry's institutional environment. Mechanism testing confirms that "reducing institutional distance" is a key promotional pathway. The government should systematically review high-standard environmental rules within signed RTAs and proactively internalize them into domestic regulations, standards, and policies for the green development of the service industry. The focus should be on improving market access for environmental services, green service certification, environmental standards for cross-border data flows, etc., optimizing the domestic institutional environment for services, reducing compliance costs for enterprises adapting to different international markets, and consolidating and enhancing the long-term competitiveness of China's service trade from the supply side.

Third, strategically deepen and expand the RTA network, prioritizing "South-South Cooperation" and rules alignment. This study indicates that RTA environmental provisions have a stronger promoting effect on service trade exports to low- and middle-income countries. Therefore, while actively seeking high-level agreements with developed countries (e.g., CPTPP) to align with international frontier rules, China should prioritize deepening RTA cooperation with other developing countries. In negotiations, China could proactively design and promote a "China Plan" for environmental provisions that aligns with the common concerns of developing countries, is progressive, pragmatic, and legally sound, focusing on incorporating environmental cooperation, technical assistance, capacity building, etc., to reduce institutional distance and more effectively leverage service export potential in emerging markets.

### ACKNOWLEDGEMENTS

Key projects of social investigation reports and academic papers in Social Sciences (xsjj202514zsa01) “Research on the Impact of FTA Environmental Provisions on China's Service Trade Exports”

### REFERENCES

- [1] Morin J-F, Nadeau R G. Environmental Gems in Trade Agreements Little-known Clauses for Progressive Trade Agreements [J]. 2017(148)
- [2] Baghdadi L, Martinez-Zarzoso I, Zitouna H. Are RTA agreements with environmental provisions reducing emissions? [J]. *Journal of International Economics*, 2013, 90(2): 378-390.
- [3] Berger A, Brandi C, Morin J F, et al. The trade effects of environmental provisions in preferential trade agreements [J]. *International Trade, Investment, and the Sustainable Development Goals*, 2020: 111-139.
- [4] Martínez-Zarzoso I, Oueslati W. Are deep and comprehensive regional trade agreements helping to reduce air pollution? [J]. *CEGE-Discussion Papers*, 2016 (292).
- [5] Horn H, Mavroidis P C, Sapir A. Beyond the WTO? An anatomy of EU and US preferential trade agreements [J]. *The World Economy*, 2010, 33(11): 1565-1588.

- [6] Dür A, Baccini L, Elsig M. The design of international trade agreements: Introducing a new dataset [J]. *The Review of International Organizations*, 2014, 9: 353-375.
- [7] Hofmann C, Osnago A, Ruta M. Horizontal depth: a new database on the content of preferential trade agreements [J]. *World Bank Policy Research Working Paper*, 2017 (7981).
- [8] Morin J F, Rochette M. Transatlantic convergence of preferential trade agreements environmental clauses [J]. *Business and Politics*, 2017, 19(4): 621-658.