

The Conflict and Integration of Environmental Law and Commercial Law: Exploring Environmental Responsibility in International Trade

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Abstract. The nexus between international trade and environmental protection is complex and of great significance. Policymakers, including the World Trade Organization (WTO), aim to combine the two targets within the sustainable development framework. However, deficiencies such as the vague environmental exception clauses persist in the environmental legal framework. This paper seeks to solve the contradictions in the current legal framework and enhance the uniformity of international trade and environmental agreements. It will first demonstrate the current dilemma of environmental responsibility in international trade, particularly examining the strengths and limitation of the WTO law in resolving these conflicts. The discussion will then compare the landmark Shrimp-Turtle case with the recent European Union's Carbon Border Adjustment Mechanism (CBAM) and analyze the historical challenges these cases highlight. Ultimately, this paper aims to offer suggestions to improve the legislative framework for international environmental responsibility in trade, and to achieve its enforcement more effectively.

Keywords: International trade; environment; WTO; Carbon Border Adjustment Mechanism.

1. Introduction

Trade liberalization and environmental protection are in conflict for decades, constituting one of the most important aspects of the relationships between economic development and the environment [1]. The contradiction between trade law and environmental law stems from their different goals. International trade law aims to foster the free trade between countries, and the trade agreements are contracted with the advancement of economy as policy fulcrum [2]. For instance, the Preamble of the General Agreement on Tariffs and Trade 1994 (GATT) recognizes that the purpose of WTO is to expand the production and exchange of goods among the Members. This purpose implies a favour for the overuse of resources instead of conservation [3]. However, the objective of environmental law is to protect the environment from being over-exploited or destroyed. The free trade of goods and services between countries requires the full use of resources, which leads to destruction of the environment. Likewise, the environmental protection measures limit the production and consumption of goods and service, causing impediment to the free trade. To solve the conflict, the WTO incorporates environmental protection rules in its agreements. However, the judgement of the Shrimp-Turtle case demonstrates that the contradiction still exists, and that the boundary of legitimate unilateral measure is obscure.

The purpose of this paper is to solve the conflict between trade liberalization and environmental protection. It will reveal the ambiguity of environmental exception clauses in the international trade agreements and the contradictions caused. Moreover, it will try to provide possible solutions to the existing ambiguity and contradictions. In particular, this paper will discuss the extent of unilateral conservation measures under WTO law and the multilateral trade system, and find out how the legal system of international trade and environmental protection can be improved. The significance of this paper lies in its potential to contribute to the development of more integrated and coherent legal strategies that simultaneously promote economic development and environmental sustainability.

This paper will first discuss the root of contradiction between trade liberalization and environmental protection, and explore the WTO's efforts to balance the unilateral conservation measures and the multilateral trade system. The discussion will then proceed to a detailed examination

of the Shrimp-Turtle case, which provides a pivotal example of the legal and practical challenges encountered in aligning trade and environmental policies. Following this, the analysis will compare these historical challenges with the European Union's Carbon Border Adjustment Mechanism, a recent policy initiative aimed at enforcing environmental standards in trade practices. Through these discussions, the paper will attempt to offer a clearer understanding and possible legal enhancements to better balance environmental and trade objectives.

2. The Current Dilemma of Environmental Responsibility in International Trade

2.1. The Theoretical Basis of Environmental Responsibility in International Trade

Environmental responsibility within the context of international trade is increasingly crucial due to the interconnected nature of global markets and the extensive environmental impacts associated with them. The basis of this responsibility lies in addressing widespread environmental problems, including contamination and depletion of natural resources, the destruction to the ecosystem, the extreme weather and climate change [2]. These issues transcend national borders, necessitating a coordinated global response [1]. According to the United Nations Framework Convention on Climate Change (UNFCCC), parties participate in environmental cooperation due to the recognition of the common adverse effect of global climate change.

The environmental responsibility can be interpreted as the legal responsibility for damaging the ecology and polluting the environment [4]. Under the requirement of environmental responsibility, companies or countries have to pay for their pollution or detriment to the environment. According to economic theory model, the effect of trade on the environment relates to the scale of trade, the composition of exporting or importing goods and the technology used in production [3]. In the context of international trade, environmental responsibility is particularly significant due to the scale and complexity of trade activities that can lead to substantial ecological disturbances [1]. International trade often involves extensive logistics and transportation, large-scale production, and consumption that strain natural resources and emit pollutants [2]. As such, integrating environmental responsibility into trade policies and practices is essential for promoting sustainable development, which seeks to balance economic growth with environmental preservation.

2.2. Legislative Framework for Environmental Responsibility in International Trade

To solve the contradiction, WTO includes environmental exceptions in its agreements, aiming to achieve the goal of free trade in accordance with the requirements of sustainable development. For instance, Article XX (g) of the GATT 1994 prescribes the exceptions regarding exhaustible natural resources. According to the Article, Members can adopt measures to protect the environment as long as they do not constitute arbitrary or unjustifiable discrimination. Besides the GATT, environmental exceptions can also be found in the Agreement on Trade-Related Aspects of Intellectual Property Rights. Article 27 of the TRIPS Agreement allows Members to exclude from patentability inventions when the prevention is to protect animal or plant life, or to avoid detriment to the environment. Moreover, Article 14 of the General Agreement on Trade and Services provides legitimacy for the adoption and enforcement of measures necessary to protect animal and plant life. These environmental exception rules enable countries to design their own measures to protect the environment.

Apart from the WTO law, there are international environmental agreements to govern and regulate the environmental responsibilities of countries. The Paris Agreement and the UNFCCC represent the global efforts to handle the crisis of climate change. Since the Paris Agreement took effect, the global society has witnessed great development in greenhouse gas reduction and adaptation to extreme climate change [5]. Similarly, countries carry out multilateral cooperation following the given environmental responsibility promises in the UNFCCC, which provides the Common but

Differentiated Responsibilities and Respective Capabilities (CBDRRC) principle for international emission mitigation.

Within the countries or regions in the world, there are internal environmental laws which also constitute the legislative framework for environmental responsibility. According to Article 36 of the Treaty on the Functioning of the European Union (TFEU), the European Union justifies the trade restrictions on grounds of the protection of animals and plants. However, similar to the GATT Article XX, the TFEU excludes the restrictions which constitute arbitrary discrimination or disguised restriction on trade. In countries including the US and China, Environmental Impact Assessment is applied to enterprises, engineering projects and government policies.

2.3. Limitations of the Current Legal Framework

Despite the presence of various international environmental agreements, significant deficiencies persist in their effectiveness. For instance, the environmental provisions leave much room for interpretation and gives no detailed explanation of the terms. The abstract description in international treaties results in ambiguity of the legal framework [6]. The scope of the arbitrary or unjustifiable discrimination described in the chapeau of GATT Article XX may be vague, which leads to disputes over the legitimacy of unilateral measures. In particular, a number of developing countries accused developed countries of using environmental standards as disguised protectionism [2].

Moreover, the extinguished CBDRRC doctrine recognized in the UNFCCC has met difficulties in its application. The scope of the environmental responsibilities of developing countries is not defined and leads to disputes in international cooperation, lowering the efficiency and effect of emission mitigating activities. Moreover, the non-economic detriment of carbon emissions is difficult to estimate and appraise, and the international carbon market established under the CBDRRC may violate the sovereignty over natural resources [7].

To explore deeper, the conflict of the legal framework may be relevant to the sovereignty of countries. The distribution of environmental responsibilities to countries demands the transfer of sovereignty. However, the theory of sovereignty transfer may constitute detriment to the developing countries [8]. Developed countries may shift their historical environmental responsibilities to the developing countries. Moreover, the sovereignty transfer theory will reduce the efficiency of environment protection and increase the inconsistency in international collective actions.

Furthermore, the current legal framework often struggles to adapt to new environmental challenges. Environmental threats evolve rapidly, and the legal responses required to address these issues need to be equally dynamic. However, international treaties and agreements typically involve lengthy negotiations and are slow to change. This lag means that new problems such as microplastic pollution, electronic waste, and other forms of modern pollution may not be adequately addressed in existing agreements [9]. Additionally, the scientific complexity of these emerging issues requires a level of technical understanding that may not be present in the legal discussions, further hindering effective resolution.

3. Legal Conflicts and Case Studies of Environmental Responsibility in International Trade

3.1. Shrimp-Turtle Case

In the Shrimp-Turtle case, the US prohibited the importation of shrimp and shrimp products harvested without using certain nets to protect endangered sea turtles caught by the harvesting nets. The ban is prescribed in Section 609 of the US Public Law 101-162, aiming to protect endangered sea turtles caught by harvesting nets. As a result, foreign shrimp products were prohibited unless the harvesting methods met the US requirements. Exporters including India, Malaysia, Pakistan and Thailand were denied import certificates resulting from the noncompliance with the US standard. Thus, they complained about the ban and initiated dispute settlement proceedings against the US

before the WTO, arguing that the US violated the prohibition of quantitative restriction in GATT Article XI.

The core legal question revolved around the compatibility of the U.S. shrimp import ban with Article XX (g) of GATT, which allows exceptions for measures necessary to conserve exhaustible natural resources, provided they do not constitute arbitrary or unjustifiable discrimination. The WTO's Appellate Body examined whether the U.S. measure served legitimate environmental protection objectives and whether it was applied in a discriminatory manner. Although the measure was acknowledged as qualifying under Article XX (g), the Appellate Body found it unjustifiable under the chapeau of Article XX due to its discriminatory application towards trading partners, disregarding their varying economic capacities and circumstances.

The Appellate Body suggested that instead of unilateral measures, the U.S. should seek cooperative approaches through negotiation with the exporting countries to achieve the environmental objectives. However, the case highlighted inherent contradictions in the WTO rulings. While recognizing the right of countries to enforce national environmental measures, the Appellate Body's decision underscored the ambiguities surrounding what constitutes "arbitrary or unjustifiable" discrimination. This ambiguity often leads to disputes over the extent to which unilateral environmental measures are permissible, reflecting a tension between the goals of environmental protection and trade liberalization. The deficiency of a clear legal standard results in the frequent dispute of unilateral measures, demonstrating the inconsistency of the legal framework.

3.2. Comparative Analysis: EU Carbon Border Adjustment Mechanism (CBAM)

In recent years, new measures to achieve the balance between environmental protection and trade liberalization have been adopted. One example is the EU Carbon Border Adjustment Management. The EU CBAM imposes a price on carbon-intensive products entering the EU to encourage a more environmentally friendly way of production in non-EU countries. The price imposed is equivalent to the carbon price in EU, making the environmental measures equitable for domestic products and imports. As an unilateral environmental measure, the CBAM is claimed to be in accordance with the WTO rules. However, trade partners of the EU question the compliance with the justifiable and non-discriminatory rule of application, which is required by the GATT Article XX. Moreover, third countries threaten the EU with retaliation.

To discover whether the EU CBAM, which is an unilateral measure, is compatible with WTO rules, the previous Shrimp-Turtle case may be considered and compared with. One argument in the Shrimp-Turtle case report is that the measure is applied to different importers in an arbitrary way because the trading partners have different economic conditions. This judgment is consistent with the CBDRRC principle, meaning that countries of different conditions should not receive the same measure. The principle was first enshrined in the UNFCCC, stressing that countries shall participate in international climate cooperation in an effective manner according to their social and economic conditions. Further, in the Rio Declaration, it is stated that the developed countries have greater responsibilities and capability to handle the environment problems. The developed countries pollute the environment to increase their economy, and as a result they have greater financial and technological capabilities to solve the pollution problem.

According to the CBDRRC principle and the Shrimp-Turtle case, the CBAM may also be arbitrary as a unilateral measure imposing same responsibilities on different trading partners. The mechanism should ideally be structured to reflect the differentiated responsibilities and capabilities of trading partners, thereby ensuring its measures are both fair and effective in promoting global environmental sustainability.

3.3. Lessons from Cases: Balancing Environmental Measures and Trade Freedom

It is argued that the CBAM should be reformed in accordance with the CBDRRC rule. The differentiation of environmental responsibilities is based on the different contribution to the pollution and consequently the different capabilities to tackle the problem [10]. According to the Rio

Declaration on Environment and Development, the contribution of developed countries to the pollution leads to the industrialization, giving them a greater capability to solve the environmental problem. The CBAM, as well as other unilateral measures, should be reformed to comply with the differentiation rule. Following Article 4 of the Paris Agreement, the CDDRRC principle includes the exemption of Less Developed Countries and the financial support for developing countries should be made to the CBAM. Countries should consider the difficulty and impoverishment of other developing countries, designing and enforcing a differentiated operation method.

Further, the compliance with the CDDRRC principle should be within the scope of WTO law. Duran proposes that the chapeau of GATT Article XX only prohibits discrimination between countries where the same conditions prevail, and thus the differentiated responsibilities for countries of different conditions are not discrimination under WTO law [10]. However, the evaluation of differentiation among countries is complex, as the CDDRRC principle leaves much room for interpretation. It can be seen from the Shrimp-Turtle case and the CBAM that both the GATT Article XX and the CDDRRC are abstract and ambiguous in the expression. Therefore, the uniformity of the legislative framework for environmental responsibility should be improved. Unified standards and clear description of legal provisions could be added to the current legal framework.

4. Optimization Path: Recommendations for Legal Framework Reform

4.1. Enhancing Environmental Clauses in Existing Agreements

To solve the conflict between free trade and environmental protection, consistency of the international trade agreements and environment agreements should be enhanced. This involves standardizing how pollution and environmental harm are assessed within these agreements, establishing uniform methodologies that all parties can apply. It not only aids in compliance but also ensures accountability under a shared set of criteria.

Moreover, the international agreements on environmental protection could be reformed into an integral system in order to avoid contradictions [6]. One effective approach would be to establish a specialized panel tasked with the ongoing review and refinement of environmental exception clauses in international trade agreements. This panel would focus on clarifying and standardizing non-discrimination requirements, ensuring that environmental measures are implemented equitably and justly across different nations.

Promoting greater uniformity in international agreements can significantly reduce tensions between unilateral conservation measures and the multilateral trade system. This would facilitate a more balanced approach to addressing global environmental challenges within the international trade framework.

4.2. Specific Optimization Measures for Environmental Objectives in Commercial Law

It is argued that the principle governing international environmental responsibilities can be transformed from sovereignty transfer of countries to constraints acceptance [8]. This shift requires a fundamental change in how responsibilities are allocated, focusing on collaborative compliance rather than imposed obligations. Such a redefinition would mean that responsibilities for environmental protection are shared more equitably, with each country accepting constraints that reflect their capacities and developmental stages.

Implementing this change would involve developing legal mechanisms that enable countries to adopt environmentally sustainable practices that are in line with their economic and social realities. This approach would encourage a more nuanced and flexible method of international environmental governance, where countries are motivated by shared goals rather than compelled by external pressures.

4.3. Recommendations for Transnational and Regional Legal Cooperation Mechanisms

Legal cooperation mechanisms should be reformed to enhance and deepen multilateral environmental cooperation. Developed countries should lead this effort, not only by setting examples in environmental stewardship and emissions reduction but also by providing technical and financial support to developing nations. Meanwhile, other countries should adopt measures and environmental scheme according to their development status [5]. Moreover, a World Environmental Organization could be established to regulate the environmental legal framework in the context of international trade [1]. Environmental certificates given by government or nongovernmental organization may increase the environmental awareness of both enterprises and consumers [1]. As a result, free trade can become beneficial to the diffusion of environmental standards throughout the world [2].

To prevent the enforcement of environmental cooperation from being hindered by trade rules targeting at discrimination, an environmental framework enhancing the transparency of information could be built. This framework should include detailed reporting systems and accessible databases that track progress and adherence to agreed environmental standards. It should facilitate all countries, especially developing ones, to adopt environmental measures that suit their specific developmental needs. This approach promotes equitable and sustainable practices globally, creating a supportive international environment where legal frameworks empower rather than hinder environmental cooperation.

5. Conclusion

This paper has examined the complex relationship between trade liberalization and environmental protection within international law. By analyzing specific cases and existing legal frameworks, it highlights the significant limitations and the urgent need for more harmonized legal approaches that can balance economic development with environmental sustainability.

The Shrimp-Turtle case and the EU Carbon Border Adjustment Mechanism (CBAM) illustrate the challenges and contentious nature of integrating environmental concerns into the global trade system. These cases reveal persistent gaps and ambiguities, particularly in the application of environmental exceptions and unilateral measures, underscoring the necessity for clearer and more consistent legal provisions.

To mitigate these issues, the paper proposes several reforms: enhancing clarity and consistency in international agreements to reduce ambiguity and prevent disputes; shifting from a sovereignty-based approach to one emphasizing shared responsibilities and adaptable constraints to encourage fair participation in global environmental governance; and strengthening legal and institutional mechanisms to ensure dynamic responses to new environmental challenges.

In conclusion, effective integration of environmental protection into international trade requires not only legal reforms but also a shift in how nations perceive and engage with these issues. As the global community grows more interconnected, the success of any legal framework will depend on its ability to adapt and foster cooperation among all nations, aiming for sustainable development and environmental conservation in a globalized world.

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