

The Rise of Green Trade Policy and Its Impact on the International Market

Jing Ma*

Henan Finance Univ, Coll Econ & Trade, Zhengzhou 451464, Henan, Peoples R china, Zhengzhou, 451464, China

*Corresponding author: majing_zijing@163.com

Abstract: *With the increasing severity of global environmental issues, governments and international organizations are gradually recognizing the key role of green trade policies in promoting environmental sustainability. Green trade policies aim to facilitate a green transition in global trade through the formulation and implementation of environmental protection measures. These policies include carbon pricing mechanisms, green tariffs, environmental subsidies, and international coordination of environmental standards. This paper systematically analyzes the definition and development of green trade policies and explores their impact on the international market. The main content covers the reshaping of international trade flows and patterns, changes in global competitive dynamics, and the optimization and adjustment of global supply chains. The study reveals that green trade policies not only drive increased demand for eco-friendly products and technologies in the international market but also reshape global competitive dynamics and promote the greening and smart transformation of global supply chains. In the future, with the further refinement of green trade policies and strengthened international cooperation, the global economy is expected to achieve more sustainable development.*

Keywords: *green trade policy; international market; carbon pricing mechanism; global competitive dynamics; supply chain optimization*

Introduction

Against the backdrop of global climate change and environmental degradation, green trade policies are gaining widespread attention from governments and international organizations as an important tool for promoting sustainable development. These policies aim to steer global trade activities toward more environmentally friendly and sustainable practices by adjusting trade rules and implementing environmental protection measures. Green trade policies not only help reduce the global carbon footprint but also promote the multi-faceted coordination of economic, social, and technological development. Therefore, in-depth research on the implementation mechanisms of green trade policies and their impact on the international market is crucial for understanding the green transition of the global economy and future development trends.

This paper begins by defining green trade policies and examining their developmental trajectory, systematically analyzing their main impacts on the international market. Through exploring the reshaping of international trade flows and patterns, the transformation of global competitive dynamics, and the optimization and adjustment of global supply chains, this paper aims to reveal the role of green trade policies in the global economy and their potential long-term effects. The research results will provide valuable insights for policymakers and business decision-makers, helping them make more informed decisions in addressing environmental challenges and seizing market opportunities^[1].

1. The Concept and Development of Green Trade Policy

1.1 Definition and Connotation of Green Trade Policy

Green trade policy refers to a series of policy measures formulated and implemented by national governments and international organizations to promote environmental sustainability and reduce the carbon footprint in global trade activities. The core goal of this policy is to adjust trade policies,

encouraging enterprises and industries to adopt more environmentally friendly and sustainable production methods. These policy measures typically include carbon pricing mechanisms, green tariffs, environmental subsidies, and international coordination of environmental standards.

The connotation of green trade policy extends beyond direct environmental protection, encompassing economic, social, and technological dimensions. First, green trade policy emphasizes the use of economic tools, such as carbon taxes and emission trading systems, to internalize environmental costs and promote a shift toward a low-carbon economy. Second, the policy also includes a social dimension, aiming to enhance social welfare through promoting fair trade and protecting ecosystem services. Additionally, technological innovation plays a crucial role in green trade policy, encouraging the development and application of clean technologies to foster sustainable development of the global green economy^[2].

1.2 Historical Evolution of Green Trade Policy

The development of green trade policy can be traced back to the late 20th century when the international community began to recognize the close connection between trade and environmental protection as global environmental issues worsened. Against this backdrop, green trade policy gradually became an important tool for countries to address climate change and environmental degradation.

Initially, green trade policies were primarily concentrated in developed countries, where strict environmental regulations and standards were introduced to drive domestic industries toward a green transition. During the 1990s, with the signing of the Kyoto Protocol, carbon emission control became a focal point globally, and green trade policies started to play a more prominent role in international trade. Many countries introduced mechanisms such as carbon taxes and emission trading systems to address global warming and resource consumption.

Entering the 21st century, especially after the Paris Agreement, the implementation of green trade policy accelerated further. The international community began to place greater emphasis on achieving sustainable development goals (SDGs), and green trade policy expanded from a singular focus on environmental protection to a comprehensive approach integrating economic, social, and environmental development. During this period, emerging market economies also actively participated in formulating and implementing green trade policies, using green technology and innovation to enhance their competitiveness in the international market^[3].

1.3 International Cooperation and Multilateral Coordination of Green Trade Policy

The effective implementation of green trade policy relies on international cooperation and multilateral coordination. Given the global nature of environmental problems, the efforts of a single country are often insufficient to tackle cross-border environmental challenges. As a result, countries promote the implementation of green trade policies through multilateral agreements and international organizational frameworks.

In terms of international cooperation, multilateral environmental agreements (MEAs), such as the Montreal Protocol, Kyoto Protocol, and Paris Agreement, have served as important foundations for promoting global green trade. These agreements set common environmental goals and standards, regulating the environmental behavior of countries and facilitating the greening of international trade. Additionally, the World Trade Organization (WTO), through its Committee on Trade and Environment (CTE), actively explores how to integrate environmental protection with trade liberalization, ensuring that the implementation of green trade policies does not create new trade barriers.

Furthermore, the number of regional and bilateral green trade agreements has significantly increased in recent years. These agreements often include environmental provisions aimed at reducing the carbon footprint of trade activities and promoting the use of renewable energy and green technologies. For example, the free trade agreements signed by the European Union with other countries often contain strict environmental standards and commitments to sustainable development. These agreements not only promote the development of international green trade but also provide a reference for other countries in formulating their green trade policies.

Overall, international cooperation and multilateral coordination of green trade policies are essential drivers of global sustainable development. By strengthening policy coordination and information sharing between countries, the international community can more effectively address environmental

challenges and achieve the dual goals of global trade and environmental protection.

2. Implementation Mechanisms and Strategies of Green Trade Policy

2.1 Government Policy Instruments and Their Application

The implementation of green trade policy relies heavily on the active promotion by governments through a series of policy tools. These tools not only aim to promote environmental protection but also foster the green transformation of industries to meet global environmental challenges. One of the core policies is the carbon pricing mechanism, which includes carbon taxes and carbon trading systems. A carbon tax imposes fees on carbon dioxide emissions, compelling businesses to internalize environmental costs, thereby incentivizing the adoption of low-carbon technologies and emission reductions. On the other hand, carbon trading systems set emission caps and allow for quota trading, offering a flexible means to achieve reduction targets. This market-driven mechanism has been widely applied in regions such as the European Union and China.

Additionally, green tariffs serve as another critical policy tool by imposing extra duties on imported products with high pollution or carbon emissions, aiming to reduce their market competitiveness and encourage importing countries to minimize such products. However, implementing such tariff policies globally faces restrictions under international trade rules, ensuring compliance with global trade agreements and avoiding trade protectionism. Environmental subsidies, another tool, provide financial support to encourage companies to adopt environmentally friendly technologies and meet green standards, reducing the cost of their green transition. This not only promotes research and development of green technologies but also fosters the growth of green industries, enhancing businesses' competitiveness in the global market.

Finally, environmental standards and regulations play a significant role in green trade policy. Governments set strict environmental standards and regulations governing the environmental requirements of products, environmental management during production, and emission limits, driving companies to enhance their environmental technologies and ensure that green products in the market meet specified standards. These standards and regulations not only advance the greening of domestic markets but also help establish a regulatory framework for green trade in international markets^[4].

2.2 Market Mechanisms and Corporate Response Strategies

Green market mechanisms and corporate response strategies form the core of green trade policy implementation. Market mechanisms, such as the creation of green finance markets and carbon markets, support the development of environmental projects and green technologies. Green finance markets, including green bonds and green funds, provide financial support for companies and projects, encouraging investments in green technologies and sustainable development projects. Carbon markets, by trading emission allowances, provide a market-driven method for companies to meet their emission reduction goals. These market mechanisms combine environmental protection with economic incentives, effectively promoting the widespread adoption of green technologies.

In response to green trade policies, companies typically adopt various strategies to adapt to the new market environment. Technological innovation is one key strategy, where businesses develop and introduce clean production technologies to reduce their environmental impact during production, enhancing their market competitiveness. Additionally, companies may seek green certifications, such as ISO 14001 Environmental Management System certification, to demonstrate compliance with environmental standards, further enhancing brand value. In terms of supply chain management, companies select green suppliers and optimize supply chain processes to ensure environmental standards are upheld throughout the production chain. This green supply chain management not only reduces environmental burdens but also enhances companies' competitiveness and brand reputation.

2.3 The Role of International Cooperation and Bilateral, Multilateral Agreements

International cooperation and bilateral, multilateral agreements play a vital role in implementing green trade policies, helping to promote green trade and environmental protection on a global scale. International cooperation fosters the sharing of best practices, technology, and experience, facilitating global efforts to address environmental challenges. For instance, the Paris Agreement sets emission reduction targets for countries, promoting the exchange and cooperation of green technologies

worldwide. Such cooperation involves not only governments but also multinational companies and non-governmental organizations, which actively contribute to global environmental protection and green trade.

On the bilateral agreement front, many countries and regions have signed green trade agreements to promote environmental cooperation and green trade arrangements. These agreements typically cover green tariffs, environmental standards, and technical cooperation, such as the green trade agreements signed between the European Union and several countries, aiming to promote the adoption of green technologies and environmental protection. These bilateral agreements help to drive the implementation of green trade policies within specific regions and provide countries with a flexible policy framework tailored to their environmental needs.

Multilateral agreements involve multiple countries or regions, often coordinated through international organizations like the World Trade Organization (WTO). These agreements set common environmental standards and trade rules, fostering the standardization of global green trade. For example, the WTO's Committee on Trade and Environment seeks to explore how to combine environmental protection with trade liberalization, developing international rules and standards for green trade policies. Through multilateral agreements, the international community can more effectively coordinate green trade policies, promote global environmental objectives, and ensure policy consistency and coordination.

In summary, government policy instruments, market mechanisms, corporate response strategies, and international cooperation and agreements collectively drive the implementation of green trade policies, forming a multi-level, multi-faceted support system for global green trade. These mechanisms and strategies not only promote environmental protection but also facilitate the sustainable development of the global economy^[5].

3. Analysis of the Impact of Green Trade Policy on International Markets

3.1 Reshaping International Trade Flows and Patterns

The rise of green trade policies has significantly reshaped the flow and patterns of international trade. First, these policies have driven trade flows towards environmentally friendly products and technologies, altering the traditional direction of trade. Carbon emission standards-based trade barriers have led countries and companies to increase their demand for green technologies and eco-friendly products. For instance, the European Union's Carbon Border Adjustment Mechanism (CBAM) requires imported products to meet certain carbon emission standards, thus boosting global demand for low-carbon products. To adapt to these policies, companies are gradually shifting their production focus to more eco-friendly products and services, influencing the structure and flow direction of global trade.

Additionally, green trade policies have promoted the standardization of green practices in international markets. Governments and international organizations have introduced common environmental standards and certification systems, advancing the global harmonization of standards. For example, the widespread adoption of ISO 14001 environmental management system certification has helped companies gain recognition in international markets, enhancing their competitiveness. This standardization process has led to more aligned trade policies across countries, reducing friction from green trade barriers and fostering greater integration and efficiency in international markets.

3.2 Shifting Global Competitive Dynamics

The implementation of green trade policies has had a profound impact on global competitive dynamics. First, these policies have reshaped the competitive advantages in international markets. Companies that possess advanced green technologies and comply with environmental standards have gained a favorable position in the global market. For example, firms with cutting-edge green technologies can secure more opportunities and a larger market share in international tenders and market competition. Conversely, companies that fail to adapt to green policies face market access restrictions and higher compliance costs, negatively affecting their global competitiveness.

Second, green trade policies have intensified competition in the global green technology sector. Investment and innovation in green technologies have become new focal points of competition for nations and companies alike. Many countries have launched national green technology innovation initiatives to encourage domestic companies to develop and apply green technologies, thereby vying for

leadership in the global market. This technological competition not only accelerates the development of green technologies but also fosters international cooperation and exchange in innovation, promoting the rapid growth of green industries.

Moreover, green trade policies have prompted a reconfiguration of global industrial chains. As countries enforce varying environmental standards, companies must adjust their production and procurement strategies within global supply chains to meet the green standards of different markets. This adjustment has not only altered the layout of international supply chains but also promoted the greening and optimization of supply chain processes, enhancing the resilience and sustainability of global supply chains.

3.3 Optimization and Adjustment of Global Supply Chains

Green trade policies have played a crucial role in optimizing and adjusting global supply chains. First, these policies have driven the green transformation of global supply chains. Faced with increasingly stringent environmental requirements, companies must adjust their supply chain management to ensure that all links in the chain comply with green standards. This includes choosing eco-friendly materials, optimizing production processes, and reducing carbon emissions in transportation. Green supply chain management not only reduces environmental impact but also enhances the overall efficiency and transparency of the supply chain.

Second, green trade policies have encouraged the regionalization and diversification of supply chains. Due to differences in environmental standards and regulations across regions, companies increasingly tend to establish production and supply chain networks in areas with more uniform environmental policies to reduce compliance costs and risks. This regionalization trend has made global supply chains more stable and controllable while also promoting the development of green technologies and industries within those regions.

Furthermore, green trade policies have accelerated the digitalization and intelligentization of supply chains. To improve supply chain traceability and environmental management efficiency, companies are increasingly adopting digital tools and smart technologies, such as the Internet of Things (IoT) and big data analytics. The application of these technologies not only boosts operational efficiency but also allows companies to monitor and optimize their environmental performance in real-time, thereby meeting the requirements of green trade policies.

In conclusion, green trade policies have far-reaching and multifaceted effects on international markets. They not only reshape international trade flows and patterns but also alter global competitive dynamics and drive the optimization and adjustment of global supply chains. Through these impacts, green trade policies not only contribute to global environmental protection but also promote the sustainable development of the global economy^[6].

Conclusion

The implementation of green trade policies has had profound and multifaceted impacts on the international market. First, these policies have reshaped international trade flows and patterns, placing environmentally friendly products and technologies in a more prominent position within global markets. The promotion of carbon emission standards and green certifications has not only altered trade directions but also accelerated the standardization process in international markets. Second, green trade policies have significantly influenced the global competitive landscape. Companies with advanced green technologies have gained competitive advantages in international markets, while those unable to adapt to green policies face market access restrictions and increased compliance costs. Additionally, green trade policies have facilitated the optimization and adjustment of global supply chains. In response to environmental requirements, companies have adjusted their supply chain management, promoting green transformation, regionalization, and digitalization of supply chains.

In the future, as green trade policies continue to improve and international cooperation deepens, the global economy is expected to achieve more sustainable development. Governments and international organizations must further strengthen policy coordination and promote the innovation and dissemination of green technologies to address growing environmental challenges. At the same time, businesses should actively respond to green trade policies, enhancing their market competitiveness through technological innovation and green supply chain management. The continued advancement of green trade policies will lay a solid foundation for the sustainable development of the global economy

and drive the international market towards a more environmentally friendly and efficient direction.

References

- [1] Li Liping, Zhang Li, Zhang Bin, et al. *The Development Process, Characteristics, and Prospects of China's Green Trade Policy* [J]. *Environment and Sustainable Development*, 2021, 46(04): 12-17.
- [2] Liu Changsong. *Global Green Trade Development and the Impact of Carbon Neutrality on China: Analysis and Response Strategies* [J/OL]. *Economy and Management*, 1-8 [2024-09-02].
- [3] Li Hanlong. *Cultivating Green Brands to Address Green Trade Barriers* [J]. *Environment*, 2024, (05): 54-56.
- [4] Liu Jintao. *Further Promoting the Development of China's Green Trade* [J]. *China Foreign Exchange*, 2024, (09): 30-32.
- [5] Liu Xiaoyuan. *A Study on Green Trade Barriers in International Trade* [J]. *Investment and Entrepreneurship*, 2021, 32(19): 72-74.
- [6] Yu Xinyi. *The Impact of International Agricultural Trade on China's Agricultural Green Total Factor Productivity* [D]. *Shandong University of Technology*, 2023.