

Global Cooperation in Opening-Up of Green Trade

The impact of climate change on human ecology, global politics, and economy continues to escalate, and the world needs an urgent transition to green and low-carbon. In the context of global cooperation to combat climate change, the relationship between trade development and environmental protection has become the focus of many countries and international organizations. Green trade has become a widely discussed topic. The international trade rules show a clear trend towards “greening.” Carbon rules are becoming an important part of global economic and trade rules, and the game surrounding the right to formulate low-carbon rules will become more intense. It is urgent for all parties to build consensus, strengthen cooperation, promote international opening-up and cooperation through green trade, and jointly combat climate change.

1. Green Trade Becomes the Focus of Global Society

The impact of the cross-border flow of goods and services in international trade on the environment is one of the key concerns of the multilateral trading system and various economic and trade agreements. As global climate change becomes increasingly severe, countries are actively exploring the path of green and low-carbon development, participating in global climate governance, and continuously strengthening communication and cooperation among them.

(1) Strengthening international cooperation is an essential option for addressing climate change

In recent years, climate change and extreme weather have occurred frequently, posing serious challenges to the survival and development of humankind. It is imperative to practice true multilateralism, strengthen international cooperation in areas such as addressing climate change,

adhere to green and low-carbon development, and accelerate the modernization of human beings living in harmony with nature. Currently, more than 130 countries have announced that they will reach the net-zero emissions target by mid-century. In September 2020, China announced its “dual-carbon” goal, i.e., to strive to reach the peak of carbon dioxide emissions before 2030 and to achieve carbon neutrality by 2060.

Main economies keep a fast pace in mutual cooperation on climate change. China is establishing and developing a climate change partnership with the EU and carrying out a great deal of practical cooperation on key issues such as renewable energy, carbon capture and storage. China and the US have been steadily advancing their cooperation on climate change, such as issuing the China-US Joint Statement Addressing the Climate Crisis in April 2021, which states that both sides are committed to cooperating with each other and working together with other countries to solve the climate crisis.

Developing countries are also actively responding to climate change issues. In 2021, China and the heads of delegations of 53 African countries and the African Union Commission jointly issued the Declaration on China-Africa Cooperation on Climate Change, emphasizing joint efforts to address climate change, contribute to sustainable development, and jointly build a community of life for man and nature.

(2) Green trade has become an important topic of extensive international discussion

As early as 1994, the Uruguay Round of General Agreement on Tariffs and Trade (GATT) negotiations has come to the Decision on Trade and Environment. The WTO set up the Committee on Environment and Trade (CET), which is specifically responsible for environmental and trade issues. Eighteen members formed the “Friends of Environmental Goods” and formally launched the Environmental Goods Agreement (EGA) negotiations in the form of open plurilateral negotiations in July 2014, with the aim of reducing or eliminating tariffs and non-tariff barriers to environmental products and promoting free trade in environmental products. As of December 2016, a total of 18 rounds of negotiations had been conducted. Members involved in the negotiations account for about 90 percent of the global market share of environmental goods trade, but the negotiations have been stalled due to the wide divergence of views among members and the presidential election in the US. After Biden came to power in 2021, the US government promised to actively promote the EGA negotiations, but the negotiations have not yet started.

The APEC is one of the earliest organizations to promote cooperation on environmental goods and services, and members have committed to further expanding the APEC environmental goods list. A number of important international institutions are actively promoting green trade rules, with the IMF proposing an international minimum carbon price program and the OECD proposing an inclusive framework for explicit and implicit carbon pricing. High-standard economic and trade agreements, such as the Comprehensive and Progressive Trans-Pacific

Partnership (CPTPP), have a special chapter on the environment and other chapters covering a wide range of trade-related environmental issues.

(3) The international community has reached a certain consensus on the promotion of green trade

The term “green trade” has appeared many times in domestic and international policy documents.¹ In the policy documents of relevant United Nations agencies, green trade mainly refers to the coordination of environment and trade, such as Agenda 21, the Rio Declaration on Environment and Development, the Report of the World Summit on Sustainable Development—Political Declaration, and the Report on Sustainable Development, all of which emphasize that trade and the environment are mutually reinforcing and coordinated. The *Greening International Trade: Pathways Forward*,² published by the United Nations Environment Programme in 2021, has repeatedly emphasized green trade and explicitly proposed the construction of an environment and trade agenda 2.0, including strengthening trade-related environmental policies, promoting the upgrade of environmental regulations in trade policies and agreements, and advancing the cooperation of environment and trade. Policy documents such as the EU’s “Adapting to Climate Change: Towards a European Framework for Action”³ paid high attention to green trade, focusing on green trade measures and trade in green products.

2. Green Trade Becomes an Important Part of Global Trade

The pace of global green and low-carbon transformation is accelerating, and more and more countries regard the development of green trade as an important means to promote economic transformation, improve international competitiveness, and discourse power in the low-carbon field. Represented by environmental products, green trade is playing an important role in the development of international trade.⁴ At the same time, green trade is facing profound changes brought about by rules such as carbon tariffs.

(1) Green trade maintains steady growth generally

According to the WTO list of environmental products, the world’s import-export volume of green trade totaled US\$8.84 trillion in 2022, with an average annual growth rate of 0.85 percent over the period 2013–2022 (see Fig. 5.1). The fluctuation of the scale of green trade is basically synchronous with the global trade in goods, and its share is stable between 20 percent and 23 percent. In 2022, the global trade in goods rebounded strongly, and the share of green trade declined slightly, accounting for about 18.2 percent of the total world trade. China’s import-export volume of green trade totaled US\$1.08 trillion, accounting for 12.2 percent of the global share, an increase of 2.3 percentage points compared with that of 2013.

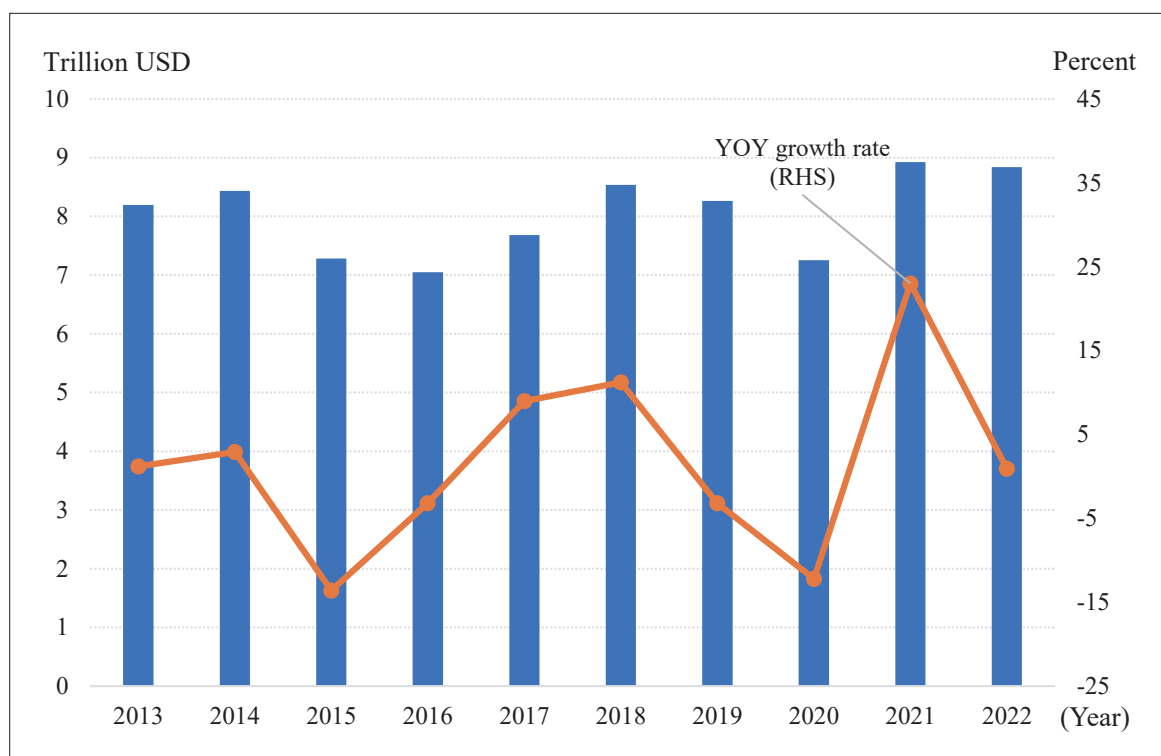


Fig. 5.1 Global green trade: 2013–2022

Source: Calculated based on the Global Trade Flow database.

(2) The regional pattern of green trade is basically stable

From the perspective of global green import and export, the EU, the US, and China have always ranked among the top three in the world, accounting for about 40 percent of the total. Developed countries such as Japan, the United Kingdom, and Rep. of Korea have consistently ranked among the top in the world.

According to the total import-export volume of global green trade, in 2022, the top ten countries (regions) in terms of green trade scale are, in order, the EU, the US, China, Japan, the United Kingdom, the Republic of Korea, Singapore, Canada, India and Mexico (see Fig. 5.2), accounting for 14.6 percent, 13.6 percent, 12.2 percent, 4.5 percent, 3.8 percent, 3.7 percent, 2.9 percent, 2.6 percent, 2.5 percent and 2.1 percent of total global green trade imports and exports respectively, together accounting for 62.5 percent of total global green trade. China, the EU, and the US are the top three countries (regions) in terms of global green trade exports, together accounting for 40.7 percent of the total. The EU, the US, and China are the top three countries (regions) in terms of global green trade imports, together accounting for 40.1 percent of the total.

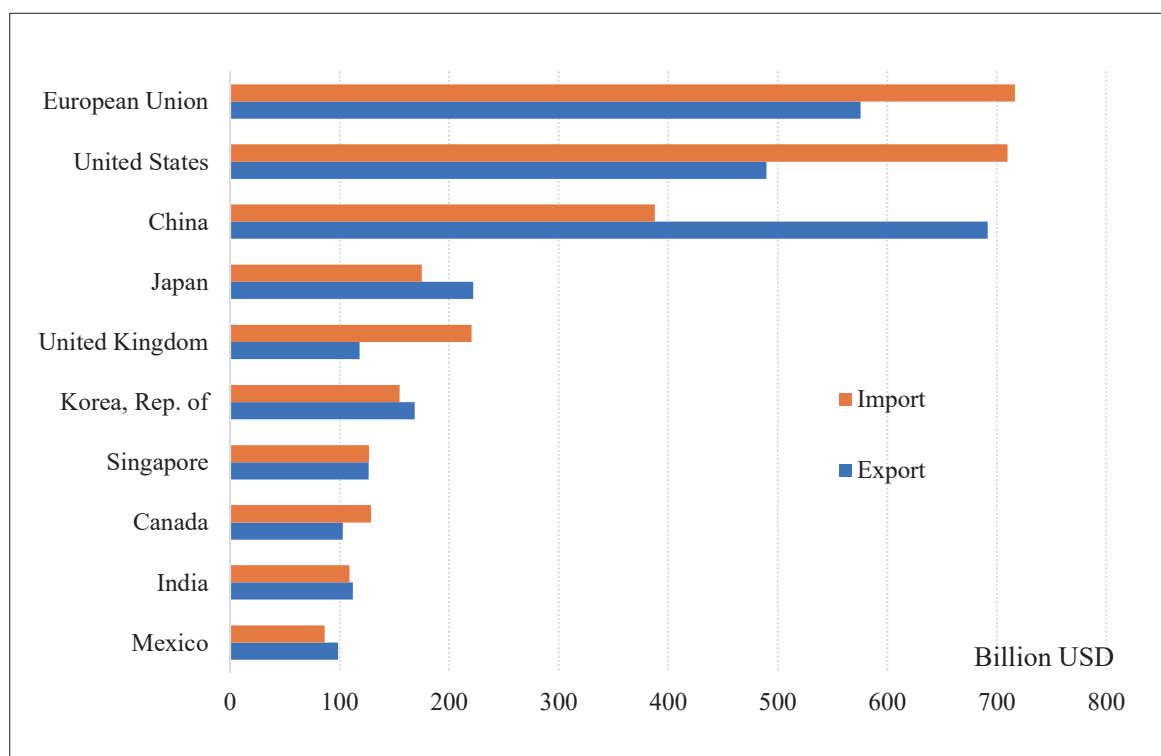


Fig. 5.2 Global green trade: Top ten economies, 2022

Source: Calculated based on the Global Trade Flow database.

(3) Green trade is dominated by environmental technology products

In terms of product categories, the import-export trade volume of environmental technology, carbon capture and storage, and other environmentally-friendly products ranked the highest. In 2022, the total import-export volume of these three categories of products remained US\$6.2 trillion, US\$4.2 trillion, and US\$3.1 trillion, respectively (see Fig. 5.3), accounting for 69.7 percent, 47.2 percent, and 35.3 percent⁵ of the total, respectively. In terms of growth rate, the top categories are other environment-friendly products, carbon capture and storage, and environment-friendly technology products. From 2013 to 2022, the average annual growth rates of the total import-export volume of the above three categories of products were 4.7 percent, 4.4 percent, and 3.8 percent, respectively.

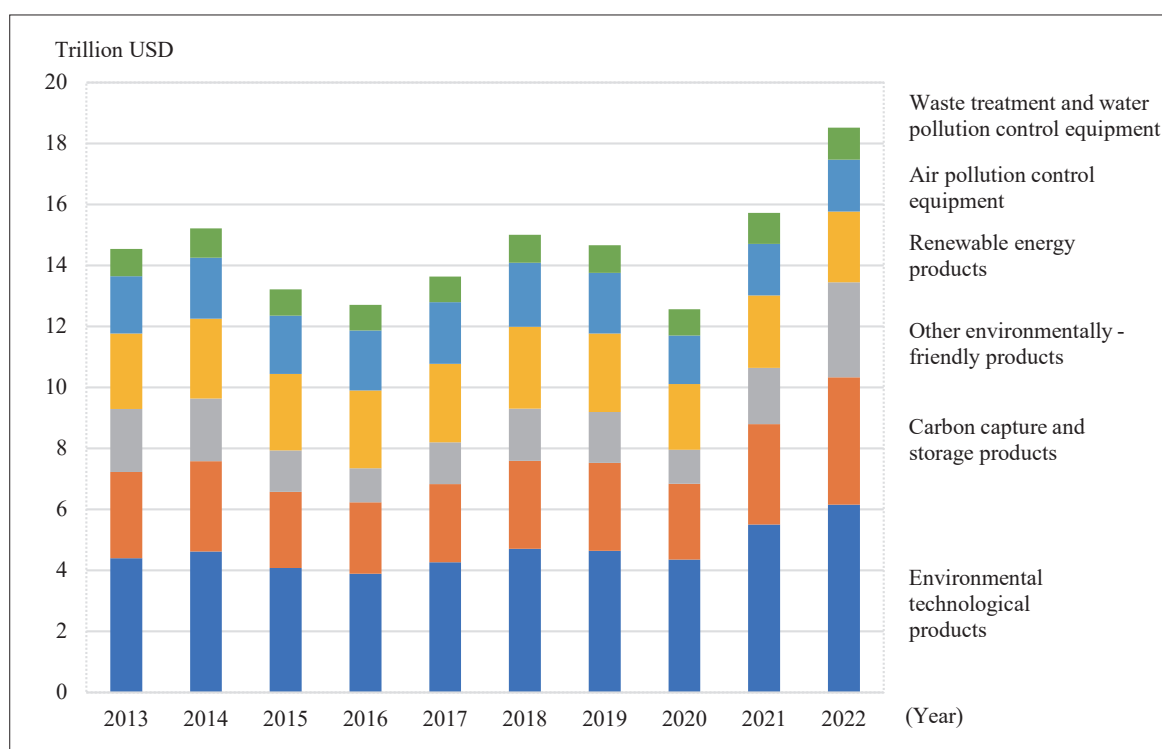


Fig. 5.3 Global green trade by product categories: 2013–2022

Source: Calculated based on the Global Trade Flow database.

(4) Green trade faces profound changes brought about by carbon rules

Institutions on carbon pricing are being established. In order to establish effective economic instruments to reduce greenhouse gas emissions, the international community has begun to promote carbon pricing, which has profoundly changed the cost structure of global green trade. Carbon Emissions Trading (ETS) and carbon tax are two important carbon pricing tools. As of April 2023, a total of 73 carbon pricing mechanisms are in operation globally, covering about 23 percent of global greenhouse gases. Some countries and regions have announced that they will launch their new ETS or carbon tax schemes. For one thing, several countries and regions have begun to establish carbon trading systems within their regions. According to the World Bank, the total trading volume of the global carbon market reached US\$95 billion in 2022, an increase of about 13 percent year-on-year, with revenues from ETS accounting for 69 percent of the total income and those from carbon tax accounting for 31 percent. The more maturely developed carbon markets mainly include the EU Carbon Emissions Trading System (EU-ETS), the US Regional Greenhouse Gas Initiative (RGGI), and the New Zealand Carbon Emissions Trading System (NZ-ETS). China's national carbon emissions online trading market was officially launched in July 2021, with expanding industry coverage. For another

thing, the Netherlands, Denmark, Finland, and other Nordic countries started to levy carbon tax relatively early, treating carbon tax as a separate tax, and have already constructed a carbon tax system. Japan, Italy, and other countries implicitly include the carbon tax in existing taxes such as environmental tax and energy consumption tax. Carbon tax policies in countries such as the United States and Canada are implemented only in specific regions of the country, or states (provinces) develop their own collection plans, so the implementation of the policy is still subject to greater uncertainty.

Carbon rules have become a key area in the international rules game. At present, the international low-carbon trade and economic rules have become an important issue in global politics and economic and social development, and the focus of attention and game of many parties. The EU has proposed the world's first Carbon Border Adjustment Mechanism (CBAM), which is to be formally implemented in 2026. In January 2023, the EU, together with New Zealand, Kenya, and other countries, established the Climate Change Trade Ministers' Coalition, which focuses on policy discussions at the intersection of trade and climate issues. The US is also in the process of proposing carbon tariff legislation. For example, in June 2023, Democratic and Republican senators co-sponsored a bill called the PROVE IT Act, which would require the Department of Energy to collect and compare average product emissions intensity data from the US and other major economies of products covered by the bill to demonstrate the low-carbon advantage of US products. Japan, the United Kingdom, Canada, and other countries tend to be proactive in their stance and attitude towards carbon tariff legislation. As more and more countries establish carbon emissions trading mechanisms or introduce carbon taxes, and as more and more carbon border adjustment measures are applied, the resulting disputes and controversies will be inevitable.

3. China's Green Trade Development Has Achieved Remarkable Success

China has made a series of deployments for the development of green trade, such as the Guiding Opinions of the CPC Central Committee and the State Council on Promoting the High-Quality Development of Trade in November 2019, which explicitly proposed to promote the coordinated development of trade and the environment. In February 2021, the Guiding Opinions of the State Council on Accelerating the Establishment of a Green, Low-Carbon, Cyclical, and Comprehensive Development of the Economic System put forward the establishment of a green trade system and the active optimization of the trade structure, vigorously developing trade in high-quality, high value-added green products. Over the years, China has been at the forefront of global green trade.⁶ In 2022, the scale of China's green trade reached US\$1,079.28 billion, ranking third in the world, and it is also the world's top green trade exporter and third largest importer.

(1) The scale generally maintains its growth

From 2013 to 2022, China's green trade increased from US\$814.43 billion to US\$1,079.2 billion, with an increase of 32.5 percent over this period and an average annual growth rate of 3.2 percent. Among them, exports grew from US\$495.79 billion to US\$691.64 billion, with an average annual growth rate of 3.8 percent, accounting for 19.2 percent of China's total exports of goods. Imports grew from US\$318.64 billion to US\$387.64 billion, with an average annual growth rate of 2.2 percent, and accounted for 14.3 percent of China's total imports of goods (see Fig. 5.4).

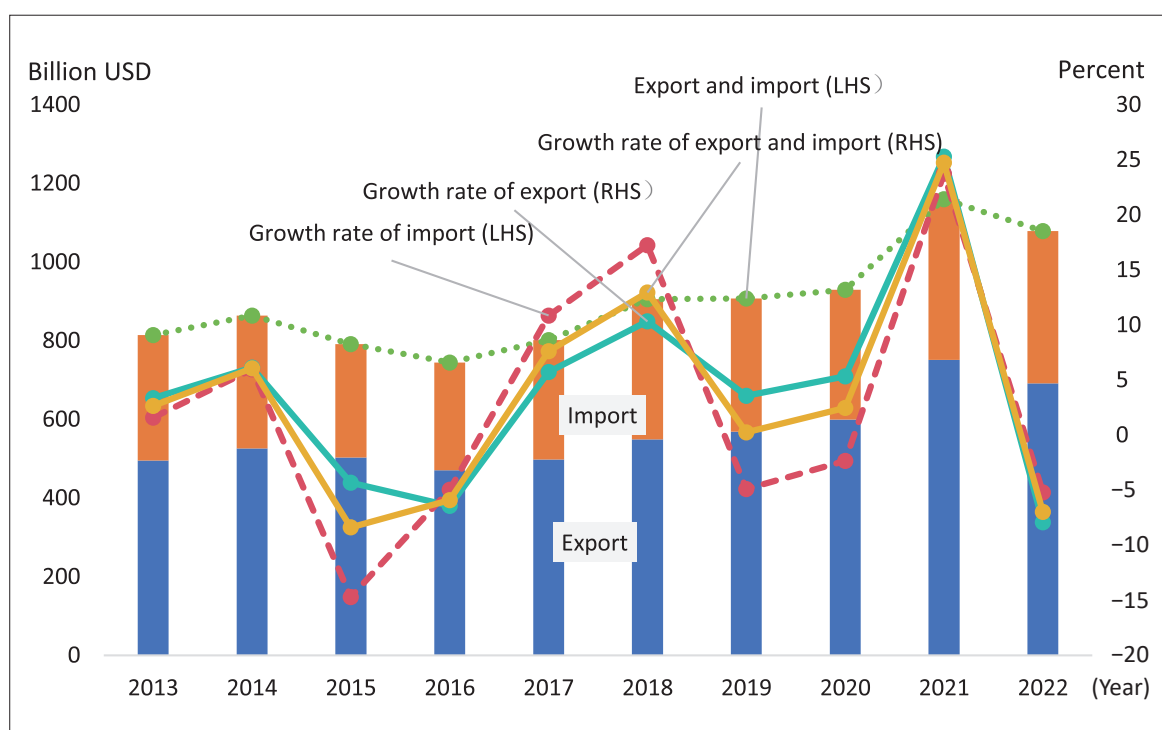


Fig. 5.4 China's green import and export: 2013-2022

Source: Calculated based on the Global Trade Flow database.

(2) The global share has been steadily expanding

Over the past decade, China's share of total global green trade has increased from 9.9 percent in 2013 to 12.2 percent in 2022, with its share of global green trade exports increasing from 12.1 percent to 16.0 percent and its share of global green trade imports increasing from 7.8 percent to 8.6 percent (see Fig. 5.5).

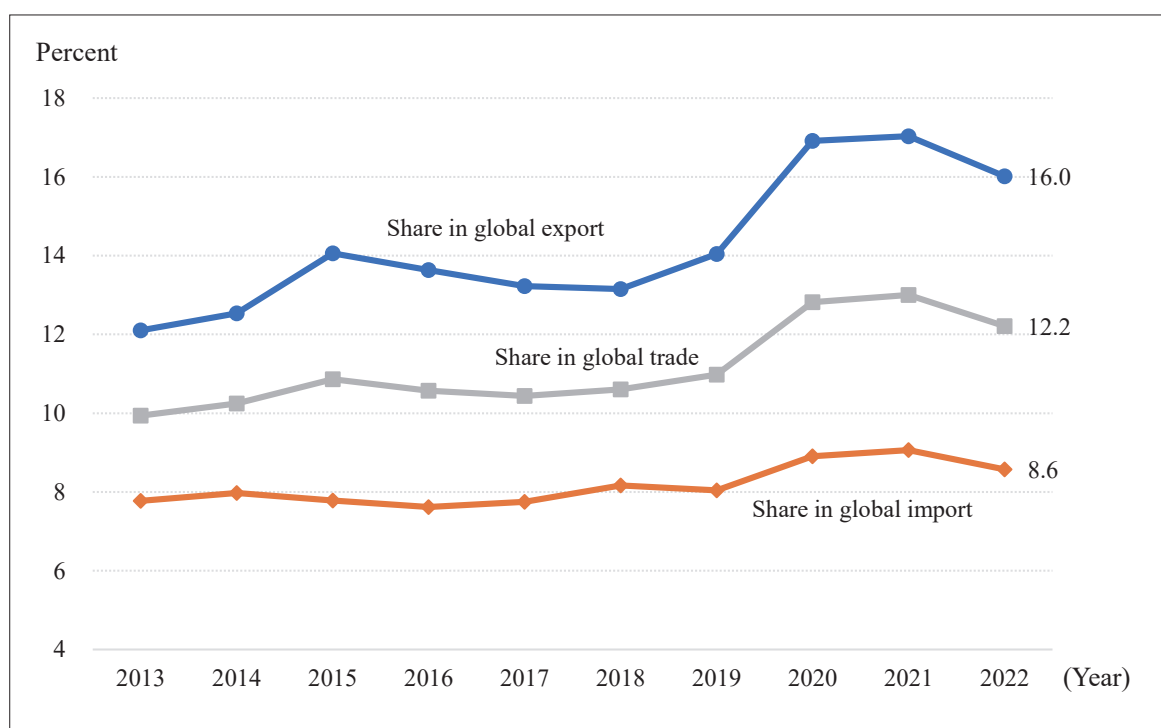


Fig. 5.5 China's share in global green trade: 2013–2022

Source: Calculated based on the Global Trade Flow database.

(3) Environmental technology products are the majority

In terms of green trade scale, the top three categories in China are environmental technology, carbon capture and storage, and renewable energy products, with total import and export amounts of US\$812.63 billion, US\$423.15 billion, and US\$214.69 billion, respectively. In terms of the share of global green trade, the import and export value of China's environmental technology products in 2022 accounted for 13.2 percent of the global trade in similar products, followed by air pollution control equipment (12 percent), carbon capture and storage products (10.1 percent), waste treatment and water pollution control products (8.9 percent), other environmental-friendly products (7.0 percent), and renewable energy products (6.9 percent) (see Fig. 5.6).

(4) High concentration in export markets

In 2022, the US, China's Hong Kong SAR, and Japan were the top three export destinations for China's green trade, with export values of US\$125.11 billion, US\$54.53 billion, and US\$32.99 billion, accounting for 18.1 percent, 7.9 percent, and 4.8 percent respectively of China's total green trade exports (see Fig. 5.7). In recent years, the share of developed countries in China's total green trade exports has gradually declined, while the share of developing countries has increased.

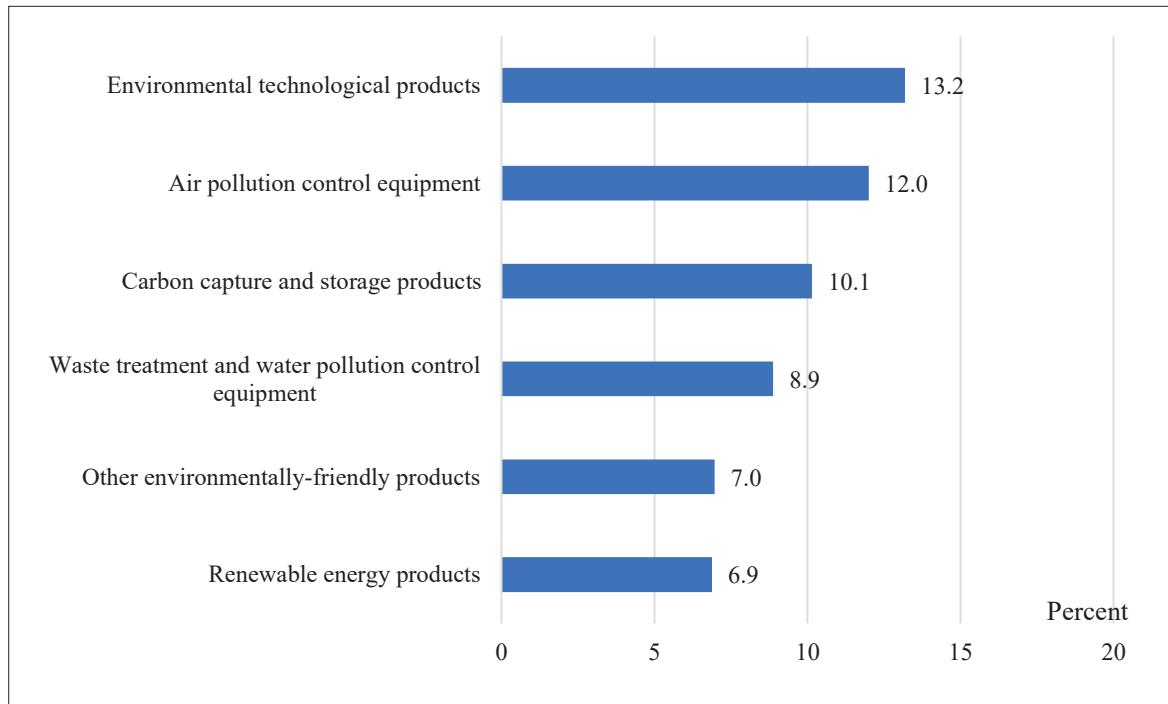


Fig. 5.6 China's share in global green trade by category: 2022

Source: Calculated based on the Global Trade Flow database.

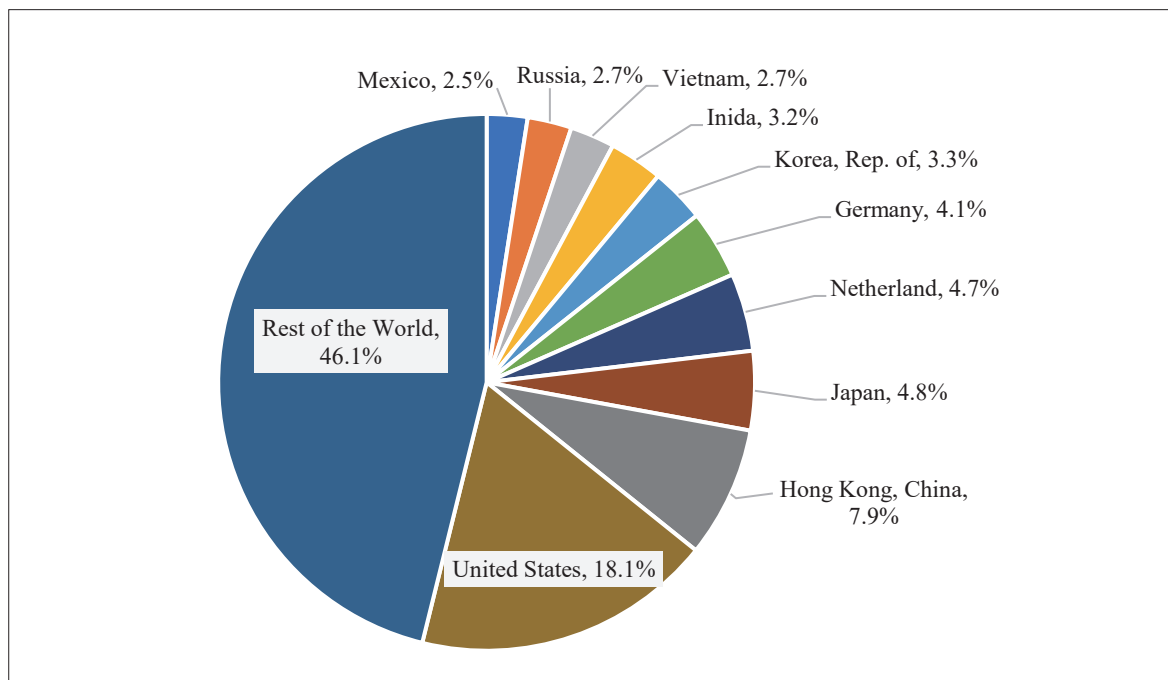


Fig. 5.7 Shares of top 10 destined markets in China's green export: 2022

Source: Calculated based on the Global Trade Flow database.

(5) Import markets become more diverse

In 2022, Japan, the US, and Germany are the top three sources of China's green trade imports, with imports of US\$47.98 billion, US\$45.79 billion, and US\$41.98 billion, accounting for 12.4 percent, 11.8 percent, and 10.8 percent of China's total green trade imports respectively, and a combined share of 35 percent (see Fig. 5.8). In recent years, the proportion of China's imports from all three countries has declined, while the proportion of imports from Malaysia, Australia and Russia has risen, with a trend towards diversification of import markets.

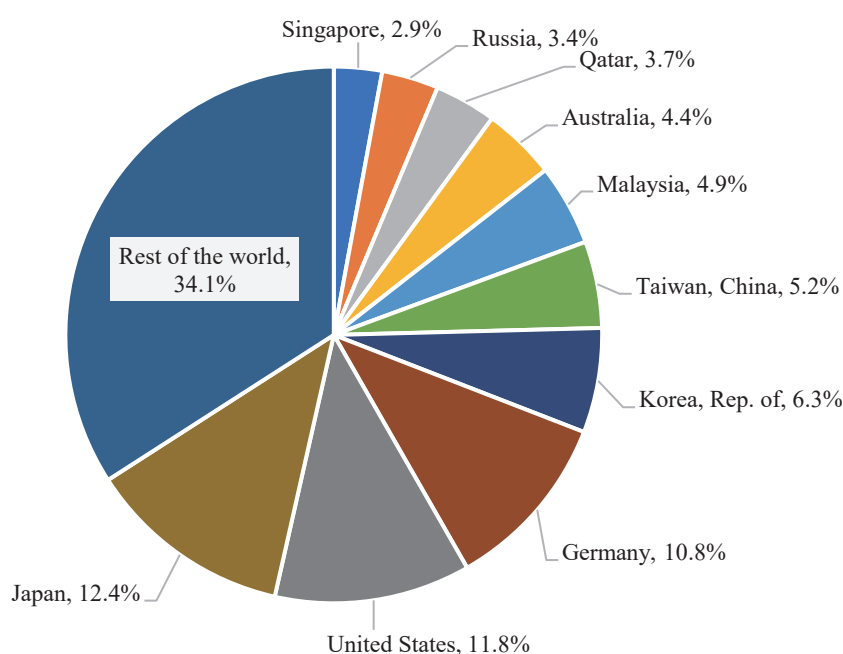


Fig. 5.8 Shares of top 10 source economies in China's green import: 2022

Source: Calculated based on the Global Trade Flow database.

Box 5.1 Seizing opportunities for low-carbon development, Sichuan vigorously develops green trade

Sichuan is an important water conservation area in the upper reaches of the Yangtze and Yellow Rivers and a core area for ecological construction, with abundant clean energy resources and favorable natural conditions for the development of green trade. Recently, Sichuan has gained its own clean energy and industrial advantages, seized the opportunity for low-carbon development, built a green trade support policy system, and vigorously developed green trade.

Actively build green industrial parks. At the end of 2022, Sichuan issued the Measures for Evaluation of Green Foreign Trade and Circular Economy Industrial Parks in Sichuan Province to support the early and pilot implementation of Pilot Free Trade Zones, national economic development zones, foreign trade transformation bases, and other platforms, and comprehensively utilize energy saving, emission reduction, carbon sequestration, carbon sinks, and other means to realize the green closed loop between projects, enterprises and industries within the platform. For the first time, it has selected two provincial-level green foreign trade circular economy industrial parks, which are the Chengdu Economic Development Zone and the Yibin Lingang Economic Development Zone.

Create a green industrial chain. Sichuan promotes the inclusion of the lithium battery material industry in the national foreign trade quality and efficiency improvement demonstration project. Shehong Economic Development Zone, aiming to create a “lithium capital,” focuses on creating a green and low-carbon industry, promotes the greening and decarbonization of production processes in enterprises, drives upstream and downstream enterprises to implement green partner and supplier management, and creates a green industrial chain by building a green supply chain information management platform. Sichuan supports the development of the green intelligent automobile industry and integrates anesthesia, power saving, and zero-loss emissions into the entire production process, creating a truly “resource-saving, environment-friendly” green factory.

Supporting the green transformation and upgrading of foreign trade enterprises. Sichuan has made efforts to build green factories and promote the greening and low-carbonization of enterprises’ production processes. It arranges provincial green low-carbon trade funds and provides special support for green low-carbon advantageous industries and foreign trade enterprises in carrying out the “carbon footprint” international certification, market development, international logistics, foreign trade services, and other aspects. It vigorously promotes energy equipment, crystalline silicon photovoltaic, power batteries, new energy vehicles, vanadium and titanium, and a large number of other low-carbon products to enter the global market. In 2022, the import and export volume of the above industries in Sichuan province reached 74.6 billion yuan, an increase of 148.5 percent year-on-year, of which the import and export of lithium materials increased by 577 percent year-on-year, which is in a leading position in the country.

4. Deepening International Open Cooperation in Green Trade

Deepening international cooperation in green trade and promoting the communication and docking of international low-carbon rules will be conducive to raising the level of global green trade development and boosting the timely achievement of carbon peaking and carbon neutrality.

China will continue to practice the concept of ecological civilization, accelerate the construction of a Chinese-style modernization in which human beings coexist harmoniously with nature, and promote global green development cooperation with its own green transformation.

(1) Upgrading the development of green trade

Optimize the structure of global trade in green products and services. China supports enterprises to adopt low-carbon green materials and technological processes to carry out green design and manufacturing, supports trade in technologies, equipment, key components, and raw materials for the green industrial chain supply chain, increases trade in green and low-carbon products such as environmental protection and new energy, and encourages trade in green consumer goods. China actively develops trade in knowledge and technology-intensive services such as energy-saving technology, low-carbon technology, green design, environmental services, energy conservation, and environmental protection and strictly controls trade in high-energy-consuming and high-emission products.

Strengthening international cooperation on green industrial chains. We must drive upstream and downstream industries and related industries to achieve low-carbon development by green trade, strengthen international cooperation in green manufacturing, actively promote the construction of a green and low-carbon industrial supply chain cooperation system, and promote the efficient and synergistic development of high-end elements and the real economy. We must coordinate industrial development and green transformation, enhance the supply capacity of green products and services, and build a green industrial system. We must adhere to the principles of intensive, green, and intelligent development, improve the utilization efficiency of new infrastructure, enhance the greening level of new infrastructure, encourage enterprises to implement green procurement, promote green packaging, collaborate to promote green supply chain management, develop green and low-carbon transport and enhance the greening of modern logistics.

Enhance technology exchange and cooperation. We must reduce the market access costs of green products and technologies, accelerate the global diffusion of green products and technologies, stimulate the increase and improvement of top-level designs for addressing climate change, increase green technological innovation in energy conservation, environmental protection, clean production, clean energy, and other fields, and actively carry out international scientific research cooperation and technological exchanges to achieve breakthroughs in green and low-carbon technological innovation. We must encourage enterprises, universities, research institutes, and relevant international organizations to carry out exchanges and cooperation in green technology innovation, deepen international cooperation on technologies, equipment, and services in the fields of energy conservation, environmental protection, and clean energy, promote the exchange and sharing of green technologies and green service, strengthen the protection of intellectual property rights for green and low-carbon technologies and products, promote developed countries to fulfill their international obligations, provide financial, technological and capacity-building support to developing countries, and upgrade the level of green development.

(2) Create a more open environment for green trade development

Deepen multi-bilateral and regional cooperation. We must jointly safeguard the international system with the United Nations at its core, promote the full implementation of the United Nations Framework Convention on Climate Change and its Paris Agreement by all parties, actively participate in negotiations on emissions reduction in international shipping and aviation, fully implement the consensus on multi-bilateral and regional cooperation, effectively promote international exchanges and regional cooperation in the field of green trade, strengthen cooperation with international organizations and institutions, and promote institutional communication, technical exchanges, project cooperation and personnel training in the field of green and low-carbon trade development. High-standard green “Road and Belt” will be jointly built.

Promote international mutual recognition of green product certification and labeling. We must promote the certification of carbon labels for goods imported and exported from various countries, promote the coordination and mutual recognition of carbon footprint methodologies for batteries and other products, strengthen international cooperation on green power certification, promote the establishment of an international green power certificate system, strengthen the research and development of international standards for green power certificate issuance, measurement and trading, actively promote the development of international technical quality standards and norms, continuously improve the international cooperation and exchange system for inspection, testing and certification and accreditation, and strengthen international cooperation on green standards.

Deepening international cooperation in green finance. We must promote practical cooperation in climate investment and financing, encourage the development of green financial products and services such as green credit, green bonds, green insurance, and green-themed public funds, and provide financing support for key areas such as energy conservation and environmental protection, clean production, clean energy, ecological environment, green infrastructure, and green services.

We must deepen international cooperation in green finance, actively construct an international cooperation mechanism for green finance, and strengthen docking in green finance assessment standards, environmental and governance information reporting and disclosure. We must strengthen international seminars on green finance, jointly promote innovation in green investment and financing products and services, actively participate in the research and formulation of international green financial standards, and strengthen international coordination of the green financial standard system.

(3) Strengthening the institutional foundation for the development of green trade

Improve the institutional system for promoting green trade. We must explore the establishment of a green trade evaluation index system, promote the relaunching of the WTO Environmental

Products Agreement (EPA) negotiations and the expansion of APEC environmental products, and support enterprises to launch more high-quality green and low-carbon products. We must improve the green trade promotion system, support green technology research and development and the construction of public platform carriers for green trade, and promote the transformation and landing of green and low-carbon technological innovations that are technologically advanced, effective, feasible, and replicable. We will support the organization of exhibitions on the theme of green trade and create a high-level, internationalized green trade promotion platform.

Establish a sound mechanism for the marketization of national carbon trading. We will give full play to the role of the national carbon emissions trading market, further improve the supporting system, and gradually expand the scope of trading industries. We will strengthen the statistical and accounting capacity for carbon emissions, deepen research on accounting methods, and promote the establishment of a unified and standardized accounting system for carbon emissions. We will guide foreign trade processing and manufacturing enterprises to carry out clean energy substitution and reduce carbon emissions per unit of product. We will promote the construction of markets for carbon emission rights, energy consumption rights, and electricity trading in a coordinated manner, strengthen the connection and coordination among market mechanisms, and incorporate carbon emission rights and energy consumption rights trading into public resources trading platforms. We will improve and promote the trading of green power certificates, promote green power consumption, facilitate the international mutual recognition of green certificates, accelerate the linkage of the international carbon market, and promote mutual recognition between China's carbon market projects and those of the international carbon market.

NOTES

1. Different documents have different understandings of “green trade”: some understand green trade as the trade of green products, which is part of trade; some understand green trade as the greening of trade, focusing on the coordination of environmental policies and trade policies development; others understand green trade as the greening of product supply chains.
2. United Nations Environment Programme, Forum on Trade, Environment and the SDGs (TESS), and Global Governance Center, *Greening International Trade: Pathways Forward* (2021), <https://wedocs.unep.org/20.500.11822/36281>.
3. European Commission, “Adapting to Climate Change: Towards a European Framework for Action,” White paper (2009), <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:percent3A52009DC0147>.
4. At present, academic circles and policy documents have not yet reached a consensus on the concept and connotation of green trade. This report is based on green trade in a narrow sense. When conducting a comparative analysis, it uses the environmental product list and product classification compiled by the WTO Secretariat. Trade in environmental products represents green trade. The WTO Environmental Products Agreement negotiations were initially based on the environmental products list released by APEC in 2012, covering 54 low-energy, low-carbon green products with 6-digit customs codes (HS Code). Subsequently, the WTO Secretariat proposed a list for each economy. On the basis of this, a list of

products containing 427 6-digit HS codes was formed, and these products were divided into six categories: environmental protection technology, renewable energy, carbon capture and storage, air pollution control, waste treatment, water pollution, and other environmentally friendly categories.

5. According to the classification of the list compiled by the WTO Secretariat, the classifications of most products with tax codes in the list overlap; that is, products with the same tax code are classified into several environmental product categories at the same time. Therefore, there will be inconsistencies between the classified aggregate data and the total environmental product trade data.
6. China has consistently ranked third in global green trade. In 2020 and 2021, China surpassed the EU and the US for two consecutive years to become the world's largest economy in green trade, with its about 13 percent contribution to the world. In 2022, China's green trade has declined, falling back to third place in the world.