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Research on Trade Development and Environmental Degradation in Developing Countries

Jian Chen¹*, Taiming Zhang²

Jian Chen, School of Public Administration and Humanities, Dalian Maritime University, Dalian 116026, China
Taiming Zhang, School of Shipping Economics and Management, Dalian Maritime University, Dalian 116026, China
*Corresponding author’s e-mail: mpa_jianchen@outlook.com

Abstract. When developing countries engage in the international trade, they often fall into the predicament of trade development and environmental governance. In recent years, developed countries have set green barriers to developing countries to replace the previous tariff barriers, which resulted in that the developing countries have to change their own industrial development style. Based on the previous research, this paper proposes the following countermeasures: 1) to clarify the source of pressure on the environment for national development goals, 2) based on the perspective of value chain, to ecologize the trade of developing countries, 3) to develop a dynamic and integrated measuring for the trade effects with environmental factors involved. 4) To pay attention to the construction of ecological protection system in trade transportation, 5) to establish an early warning mechanism for the green barriers and actively participate in the formulation of international rules.

1. Introduction
Trade and environmental dilemmas which the developing countries must face. The low technology levels in developing countries resulted in a loss of comparative advantage, which in further, make the countries turn to a pursuit of large industrial scale and resource exports, this turning has created environmental conflicts. As a result, the developed countries have set relatively unfavorable green barriers to the developing countries.

In the export trade, developing countries are mainly hindered by the following seven barriers: environmental additional tax system, market access system, green environmental labeling system, product processing standard system, green packaging and labeling system, green health quarantine system, Green subsidy system [1].

Developing countries are currently in the midst of economic development and environmental protection. The Environmental Kuznets Curve believes that within a certain period of time, the income rise per capita will lead to increased environmental pollution. Only after the economic development reaches a certain stage can the environment be improved [2]. The developing countries are undoubtedly at this stage, and the environmental dilemma of developing countries is inevitable.

When taking part in the international trade, the developing countries must consider not only the weak industrial base of their country, but also the influence of other countries. First, developed countries will use tariffs and green barriers to block developing countries’ exports of primary and secondary products. In this case, developing countries will face the dilemma of "double loss."
essence, developed countries will use green barriers as a key threat to import large quantities of raw materials from developing countries to achieve the purpose of looting raw materials. Second, developed countries will use trade liberalization as an excuse to transfer more polluting industries to developing countries. Finally, there are unfair issues in current international environmental legislation and differences and preferential treatment for developing countries, which makes many national standards and preferential treatments unmatch developing countries. This will encourage developing countries to carry out trade-offs between tariffs and environmental standards in the trade development [3].

2. The impact of green barriers in international trade on developing countries.

Green barriers come in many forms and have some complexities. Developed countries will continue to update and evolve this way. Due to information asymmetry, it is difficult for developing countries to respond to green barriers in a timely manner and their own interests will be violated. The impact of green barriers on developing countries is as follows: First, hinder the export of goods from developing countries. Developed countries have imposed various restrictions on traditional industries, which has resulted in a decreasing trend in the number of exported goods in developing countries, and this has seriously affected the trade order of developing countries. Second, increase the cost of enterprises. In order to deal with trade barriers set by developed countries, developing countries need to raise environmental standards. At the same time, in the process of checking the implementation of green barriers, it will also waste time, which is not good to the development of enterprises. Third, the deterioration of trade relations between countries. When developing countries join in the foreign trade, they will unilaterally change trade measures, raise standards, and limit imports from developing countries, which will worsen trade relations between countries.

However, these systems are both challenges and opportunities for developing countries. Green barriers will force developing countries to support green industries, paying attention to environmental protection and rational use of ecological resources, and will encourage developing countries to attach more importance to the rights protection, establish a sound mechanism to deal with the green barriers, and then participate more and more actively in the international movements to change their situation[4].

3. Measures for developing country to respond to the green barriers.

This paper advises to clarify the main sources of environmental pressures which the foreign trade brings, [5] and then rationally optimize them, and actively participate in international consultations, Thereby to promote the structural transformation of the country's trade and economic development.

3.1 Clarifying the source of environmental pressure on trade development goals.

3.1.1 The environmental impact of the export structure transformation of developing countries. At present, developing countries are at the stage of transforming primary products into industrial manufactured goods. At this stage, developing countries mainly produce industrial manufactured goods that pollute the environment. The low-cost strategy is their main marketing strategy, which will cause ecological damage and resource waste in developing countries and worsen the survival of enterprises in developing countries.

3.1.2 The environmental impact of population growth and consumption growth in developing countries. In the case of an increase in population, consumer demand is expanding, and the original productivity and infrastructure may be difficult to support such an increase. In order to solve the employment problem, the government will also develop a large number of secondary industries and introduce foreign companies, many of which have environmental and resources. A destructive industry is a lack of government management and environmental protection.
3.1.3 The demand for national energy resources has led to the impact of trade on the environment.
The demand for energy in the developed countries in the world is gradually increasing. Under this circumstance, only developing countries with abundant resources but backward manufacturing will supply resources and pass onto them, which will deteriorate the recycling of ecological destruction in developing countries.

Clarifying the main source of environmental pressure in national trade development goals is the first issue to be considered in addressing environmental issues in developing countries and responding to green barriers[6,7].

3.2 Based on the source, the ecologicalization of trade in developing countries is proposed from the perspective of value chain.

As the final product of the value chain, trade should be considered from the perspective of all economic activities. The concept of protecting the ecological environment, and the relevant ecological environment indicators must be integrated into the whole process of the value chain to realize the ecological transformation of international trade. At the same time, while pursuing the business value, to creates ecological value and ultimately coordinates the relationship between economic development and the environment. This article proposes the following practices[8].

First, the full value chain is ecological. From the development and exploitation, production, marketing and trade to the whole process of environmental transactions, the product recycling is strictly controlled to prevent secondary pollution, and legislation requires product trial production to eliminate pollution at the source level. Second, rationally coordinate the division of value chain. The division of value chain is the source of added value of products, properly coordinate the distribution of economic activities among developed and developing countries, to prevent pollution concentration and uneven management. Finally, vigorously develop technological innovation. The innovation driving force of new technologies is helpful to the industrial transformation, and proposes new solutions to solve the contradiction of traditional extensive production, to help make the trade products develop in the direction of low consumption, zero emissions, and efficient cleaning.

3.3 Dynamically and comprehensively integrate environmental factors into the measurement of international trade benefits.

Trade activities are based on raw material-based products, and most of the environmental pollution caused by the raw materials themselves and the production process is not taken into account in the trade income, so the accumulation of economic spillover effects directly reduces the net trade benefits of a country. For example, if the comprehensive assessment model (IAM) incorporates carbon dioxide emissions into the analysis, it should strictly control the factors related to the environmental pollution costs of raw materials, trade and transportation fuel emissions, port pollution, and other environmental activities, and improve the environmental space. And at the same time, partially increase the polluting raw material prices, set emission standards or taxes to limit the manufacture of pollution trade practices[9].

3.4 Ocean Green Trade

Shipping is the only mode of transportation that can undertake a large number of international trade. Its carrier - ships and ties - the ocean has become a direct factor in international trade. Factors associated with the ship: fuel, port construction, planning, routes, ship discharge, etc., will affect the marine ecological environment more or less, especially in areas with frequent shipping trade in Southeast Asia, South Africa, Mediterranean coast. It becomes vulnerable with a large impact. In order to curb the deterioration of marine ecology, first of all, legislation should be adopted to restrict marine aquaculture and overfishing in various countries, such as the constraints on shrimp culture in various countries, and to protect the coastal water quality to a certain extent to protect large areas of mangroves. In this way, the negative externalities of the aquaculture trade and the destruction of the offshore ecology can be controlled, and the two systems of trade and external ecology are
simultaneously optimized. Secondly, in the shipping agreement and contract, the International Maritime Organization shall stipulate that the ship shall use the fuel class and classify the corresponding environmental protection level. If it does not meet the requirements, it shall not be airworthy, and the route selection shall be approved according to the level to protect certain ecologically fragile sea areas. Finally, the requirements of the shipping companies must check whether the fuel storage equipment, power equipment, circulation system are working properly beforehand to avoid pollution leakage.

3.5 Establish an early warning mechanism for green barriers.
The reasons and forms of setting up green barriers in developed countries are diverse and the renewal time is fast. Enterprises in developing countries are easily damaged by incomplete information. Therefore, an effective green barrier early warning mechanism is established to understand foreign information about green barrier policies in time and conduct in-depth research to adjust the economic structure of enterprises to meet the requirements of international trade.

3.6 Actively participate in the formulation of international rules.
Developed countries should strengthen international cooperation with developing countries and take more responsibilities according to their industrial transfer. For example, the introduction of ISO14000 environmental management system standards in the evaluation indicators of trade activities will control the environmental problems of organizational activities, products and service processes. Standardize the production process of enterprises, control pollution from the source, and produce more competitive products; improve the reputation of the country and enterprises, and promote the economic restructuring of developing countries[10].

4. Conclusion.
When developing countries aim to solve environmental problems in international trade, they first need to understand the source of environmental pressure on national trade development, and comprehensively consider the coordination between trade activities and the environment from the value chain and dynamic economic activities related to environmental space. It cannot be ignored that the transport system to which trade is attached has a negative external effect on the environment and should be properly regulated. To improve its own unfavourable situation, by establishing an early warning mechanism for the green barriers and actively participating in the formulation of international rules. With the gradual strengthening of international environmental awareness, developing countries will also improve their own production processes, and gradually move toward to a higher development stage in EKC theory.

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