



# Optimization of China 's Environmental Protection Tax System from the Perspective of Green Taxation

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**Abstract.** Green tax is a general term for all kinds of taxes and tax items related to the rational development of resources and the effective protection of the environment in the tax system. A sound green tax system is a necessary means to achieve green sustainable development. As the core tax of green tax, environmental protection tax plays a leading role in environmental protection. However, China 's current environmental protection tax system has the problems of narrow taxation scope, unreasonable tax rate setting, imperfect tax use system, unscientific tax preferential policies, and imperfect collaborative governance system, which is not conducive to the improvement of the green tax system. In order to further optimize the environmental protection tax system, promote the development of green tax, and help improve the green tax system, we should expand the scope of taxation, optimize the tax rate, establish a special tax system, improve tax incentives, and improve the departmental collaborative governance system.

**Keywords:** Environmental protection tax, green tax, tax scope, tax rate, tax incentives, departmental collaborative governance

## 1 Introduction

Since the implementation of the reform and opening up policy in China, the rapid economic and social development and achievements are well known, but at the same time, it has also brought about environmental pollution problems, which has had a profound impact on the high-quality development of China 's economy <sup>[1]</sup>. It was not until January 1,2018 that the environmental protection tax was levied.

Environmental protection tax is the first idiosyncratic green tax that clearly aims at environmental protection. Its main goal is to maintain and optimize the environment and reduce pollutant emissions. As the core tax of green tax, environmental protection tax plays a leading role in environmental protection <sup>[2]</sup>. The key value of the environmental protection tax is reflected in the optimization of the green tax system and the adjustment of the pollution control actions of the emitters, which is a late intervention green tax method. It symbolizes the initial establishment of our country 's green tax system <sup>[3]</sup>. Although the environmental protection tax has obviously stimulated the environmental protection work since its inception, effectively promoting the imple-

mentation of energy conservation and emission reduction actions, it also reveals some problems that need to be solved urgently.

## **2 The Problems of Environmental Protection Tax from the Perspective of Green Tax**

### **2.1 Tax Coverage Is Relatively Small, Which Is Not Conducive to Achieving Environmental Goals**

China 's environmental protection tax is mainly levied on four major pollutants. Although there are more sub-projects under these four major pollutants, the scope of taxation does not cover all pollutants that may pollute the environment.

#### **2.1.1 Carbon Dioxide is not Included in the Scope of Taxation.**

China 's environmental protection tax does not include carbon dioxide and other carbon-containing compounds in the scope of taxation. However, China mainly emits carbon-containing compounds such as carbon dioxide, which has caused serious damage to the ecological environment. Especially in the context of carbon peaking and carbon neutrality goals, the regulation of carbon dioxide emissions needs to be strengthened.

#### **2.1.2 Volatile Organic Compounds are not Included in the Scope of Taxation.**

The " Environmental Protection Tax Law " does not fully follow the " Pilot Measures for Volatile Organic Pollutant Discharge Charges " ( Finance and Taxation No.71 ). The provisions on the collection of atmospheric pollutants according to the first three items lead to the lack of regulation of volatile organic compounds emission behavior in the existing " Environmental Protection Tax Law. " These volatile organic compounds not only do great harm to the ecological environment, but also seriously endanger people 's life and health<sup>[4]</sup>.

### **2.2 The Tax Rate Setting is Not Reasonable**

#### **2.2.1 The low tax rate of Environmental Protection tax is Difficult to Encourage Companies to Actively Implement Energy Conservation and Emission Reduction Measures.**

If the charge rate of environmental tax is low, then the cost of using environmental resources is lower than the cost of saving energy consumption, so it may give priority to paying environmental tax; however, if the tax rate is too high, it means that the amount of environmental protection tax that enterprises need to bear is equivalent to or even higher than the cost of dealing with pollution. At this time, enterprises may be more willing to invest in pollution prevention and control to reduce waste gas emissions.

### **2.2.2 Improper Floating Tax Rate May Lead to ' Tax Depression ' .**

According to the " Environmental Protection Tax Law " implemented in China, the amount of atmospheric and water pollutants that should be taxed ranges from 1.2 to 12 yuan per unit and from 1.4 to 14 yuan per unit, respectively. This variable fee design is designed to ensure that regions can maintain ecological balance while maintaining economic development, but this changing cost structure is prone to the occurrence of ' tax depression ' companies as a profit-making institution may choose to relocate their business locations to reduce costs and reduce tax expenditures.

## **2.3 The Tax Use System is not Perfect**

Although China 's environmental protection tax has been levied, China has not yet established a special tax use system. This article stipulates the specific content that budget revenue should contain. The tax of China 's environmental protection tax belongs to tax revenue, so according to the provisions of China 's " budget law, " the tax should also be included in the general public budget<sup>[5]</sup>.

## **2.4 Tax Incentives are not Scientific**

### **2.4.1 At Present, the effect of China 's Environmental Protection Tax Preferential Policies is Limited.**

According to the provisions of Article 12 of the ' Environmental Protection Tax Law ' on temporary exemption of environmental tax, these situations are not related to the reduction of enterprises ' emissions. However, if enterprises can meet the requirements of national or regional pollutant reduction, it is possible to obtain a part of the tax relief, which will help to promote the energy saving and low carbon action of enterprises to some extent.

### **2.4.2 The Tax Reduction of Environmental Protection Tax Designed is not Scientific.**

The two nodes of tax reduction and environmental protection tax rate set in Article 13 of the Environmental Protection Tax Law are not high, and the two key points of cost saving are not enough to promote enterprises to take measures to weaken their waste gas and sewage dispersion and increase their requirements for energy utilization efficiency.

## **2.5 The Imperfect Collaborative Governance System has an Impact on the Efficiency and Quality of Collection and Management**

In order to improve the efficiency of tax administration, the tax authorities have adopted a cross-departmental collaboration model with other relevant functional departments, which is the tax collaborative governance system. However, this model is still in its infancy and needs to be improved. In practice, the respective positioning

and responsibilities of tax authorities and environmental protection departments are not clear.

In addition, China has not yet built an integrated data sharing information system for tax, environmental protection and third-party testing units, which greatly limits the work efficiency between departments and the quality of environmental protection tax management.

### **3 Suggestions on the Optimization of Environmental Protection Tax from the Perspective of Green Tax**

#### **3.1 Broadening the Scope of Taxation**

Future policies should include more types of pollutants such as carbon dioxide, ozone substances, etc. In addition, in addition to the noise generated by existing factories, it is also necessary to pay attention to the noise problems caused by transportation and construction and include them in the tax category. At the same time, we should also pay more attention to the taxation of light and other types of pollution sources.

##### **3.1.1 Inclusion of Volatile Organic Compounds in the Scope of Environmental Protection Tax.**

What is urgently needed is to quickly optimize and improve the ranking method of pollutant emissions, and at the same time moderately expand the scope of environmental protection taxes that need to be levied to include those volatile organic compounds that have high emissions, seriously affect human health, need to reduce emissions, have established technical specifications, and can be operated on management.

##### **3.1.2 Inclusion of Carbon Dioxide in the Scope of Environmental Protection Tax.**

The study finds a significantly positive interaction effect of governance and environmental tax on carbon emissions. The findings support green dividends<sup>[6]</sup>. Although China began to implement the carbon emissions trading system in 2011, it faces challenges such as cumbersome trading processes, unpredictable pricing fluctuations, and difficult quota distribution. As a result, the previous carbon emissions trading was limited to the power industry and limited to companies that consume 10,000 tons of standard coal or more per year. We can consider carbon dioxide as the object of environmental protection tax, and use the method of environmental protection tax to adjust those small and medium-sized enterprises that are not involved in carbon emission trading, so as to promote the goal of carbon peak carbon neutrality.

#### **3.2 Optimizing Tax Rates**

##### **3.2.1 Floating Tax Rate to a Fixed Tax Rate.**

We can transform the flexible collection method into a fixed collection method. There are two main benefits of this strategy: firstly, it can enhance the sustainability

and responsibility of enterprises; secondly, it can effectively prevent the vicious circle between economic development and natural conditions in the west, thus helping China to achieve the established, comprehensive and stable green growth goal.

### **3.2.2 Increase Tax Revenue, Design Environmental Protection Tax Rate According to the Current Standard Ceiling.**

Enterprises are not keen on capital investment in environmental protection projects. The main reason is that the current environmental protection tax collection ratio is relatively low. Compared with the expenditure required for environmental protection projects, paying environmental protection tax can bring higher returns. If the collection ratio of environmental protection tax can reach the highest level of existing tax regulations, then enterprises may have greater motivation to increase investment in environmental protection to reduce pollutant emissions.

### **3.3 Establish a SPECIAL TAX SYSTEM**

The special purpose of tax funds can be applied to environmental protection projects, enhance the efficiency of tax use, and fully avoid the loss of environmental protection funds. To a certain extent, it can reduce the resistance of environmental tax collection. In China, the implementation of special funds for taxes is fully in line with the requirements of the masses of the people to improve the quality of the environment, and can make the use of taxes transparent, easy to be supervised by the people, to avoid distorting taxes.

### **3.4 Improve Preferential Tax Policies**

The provisions of environmental tax preferential policies should be specific. Preferential policies such as environmental tax reduction, exemption, subsidy, and reward can be formulated. Through diversified preferential tax policies to promote the development and utilization of new energy, accelerate the transformation of China's economic development mode, encourage enterprises to actively adopt advanced environmental protection technology for energy conservation and emission reduction, so as to achieve the purpose of protecting the ecological environment and controlling environmental pollution, and realize the original intention of China's "environmental protection tax law."<sup>[5]</sup>

### **3.5 Improve the Departmental Collaborative Governance System**

In the 'Environmental Protection Tax Law', the subject, task scope, process rules, supervision mechanism and so on of environmental tax collection and management cooperation can be specified in detail; at the same time, in the 'tax collection and management law', it can specifically explain how departments and institutions cooperate with the tax authorities to fulfill their functions and powers, the process steps, the distribution of responsibilities at each stage and the protection of their rights and

interests, so as to realize the coordination between the ' tax collection and management law ' and the ' environmental protection tax law '.

## 4 Conclusion

In summary, as a key component of the green tax system, environmental protection tax plays an important role in the process of green development in China. At present, there are some problems in China 's environmental protection tax system, such as narrow taxation scope, unreasonable tax rate setting, imperfect tax use system, unscientific tax preferential policies and imperfect collaborative governance system. These problems restrict its full play in environmental protection to a certain extent. In order to promote the development of green taxation and help realize the goal of green sustainable development in China, it is necessary to expand the scope of taxation and include carbon dioxide and volatile organic compounds ; optimize the tax rate, change the floating tax rate to a fixed tax rate and increase the collection standard ; establish a special tax system to ensure the rational and efficient use of environmental protection funds ; improve preferential tax policies and enhance the scientific and incentive nature of policies ; improve the departmental collaborative governance system, improve the efficiency and quality of collection and management and a series of optimization measures. Through these measures, we will continue to improve China 's environmental protection tax system, and then improve the green tax system to provide a solid tax system guarantee for the green transformation of the economy and society and the protection of the ecological environment.

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